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(DR. R. GREY'S)

MEMORIA TECHNICA,

OR METHOD OF

ARTIFICIAL MEMORY,

APPLIED TO AND EXEMPLIFIED IN

Chronology,
History,

Geography,
Astronomy.

ALSO,

JEWISH, GRECIAN, AND ROMAN COINS,
WEIGHTS, MEASURES, &c.

TO WHICH ARE SUBJOINED,

LOWE'S MNEMONICS

DELINEATED,

IN VARIOUS BRANCHES OF LITERATURE
AND SCIENCE.

A NEW EDITION, CORRECTED.

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PREFACE.

IT may be proper to acquaint the reader with what improvements have been made in this work since its first publication. In the tables of the patriarchs and ancient kings, care has been taken to signify, with the utmost brevity, the relation which every person bore to his immediate predecessor. In the geographical part, besides the adding of many remarkable places both in ancient and present geography, the memorial lines for the general and particular divisions have many of them been formed anew, with particular regard to the situation of the respective kingdoms, provinces, or countries into which those divisions have been made; so that every line is in some measure the epitome of a map. The tables of ancient coins, weights, and measures have been carefully reviewed, and very much augmented; and decimal tables subjoined, of great use for the more speedy and exact reduction of them. There is likewise added an Index of the historical, chronological, and geographical words; of the usefulness of which is given an account in the proper place. Besides these, there are several alterations and additions of less moment, interspersed throughout the whole; such as either my own experience or the judgment of my friends had suggested to me, in order to render the design more useful. I shall not trouble the reader with the reasons of them, which, if he compares the editions, he will very probably find out himself: nor do I think it necessary to apologize for having made them, since it could not be expected that an invention

of this kind should be so perfect at first, as not to be capable of being considerably improved. And I was the more willing to bestow some care and pains upon it, and to give it what improvement I was able, in return for the favourable reception it has met with from the public, beyond what was expected by myself or others. An Art of Memory has by many been looked upon as a thing either in itself impracticable, or, at least, in the common methods of it, useless and trifling. And I was sensible that the following method would lie under the additional disadvantage of a whimsical and out of the way appearance; besides that, the seeming difficulty of it at first sight would, I foresaw, deter many from so much as attempting to make themselves masters of it. Notwithstanding these discouragements, it has had the good fortune to give some satisfaction, and to meet with some success; and will, I hope, continue to be looked upon as an useful help to those who delight in reading, and would retain what they had read with faithfulness and accuracy, particularly in such points wherein their memories are most likely to fail them.

The objections which have been made to it from the difficulty of remembering the memorial lines would most effectually be removed by habituating young minds to them betimes, by the frequent transcribing and repetition of them. The technical words would by this means become natural and familiar, and of no small advantage to them in the course of their future studies; they would be easily received and long retained. But I shall say no more upon this point, having already touched upon it in the Introduction; to which also I refer the reader for what might further be expected by way of Preface.

INTRODUCTION.

IT is a general complaint amongst men of reading, and to many a discouragement from it, that they find themselves not able to *retain* what they read with any certainty or exactness. And in no part of literature is there greater room for this complaint than in *History*: to the studying of which with pleasure and improvement, as nothing contributes more, so nothing has been thought more difficult to be *retained*, than a distinct and accurate knowledge of *Chronology* and *Geography*. Upon this account several attempts have been made to remedy, in some measure, the defects of the memory, by chronological and geographical tables, cuts, and maps, and by reducing the principal parts of history to certain epochas or æras, so disposed and contrived, as may be most likely to affect the imagination, and make the deeper impression upon the mind. Thus Mr. Hearne, in his *Ductor Historicus*, has reduced the whole compass of chronology to thirteen grand epochas, all beginning with the letter C. Dean Prideaux, in his *Introduction to History*, has made use of the number *seven*, throughout his whole book; “not out of affectation (as he tells us) but experience, as *most easy for the memory* ;” with others of the like nature, which serve at least to show that the memory wants assistance, and that small helps are better than none. But of all the inventions made use of for this end, none has been found to contribute more to the assistance of the memory than that of *technical verses*; both as they generally contain a great deal in a little com-

pass, and also because being once learned, they are seldom or never forgot. For the truth of which I may venture to appeal to the weakest memories, whether they have not to the last found themselves in possession of that ever-memorable line,

Barbara Celarent Davii Feiro Baralip-ton.

Of this nature is the following method; the design of which is, not to make the memory better, but things more easy to be remembered; so that by the help of it, an ordinary, or even a weak memory, shall be able to retain what the strongest and most extraordinary memory could not retain without it. For, as he, who first contrived to assist the eye with a telescope, did not by that pretend to give sight to the blind, or make any alteration in the eye itself, but only to bring the objects nearer, that they might be viewed more accurately and distinctly; so neither is it pretended* by this art to teach those to remember every thing who never could remember any thing; or to make men in an instant skilful in sciences which before they were utterly unacquainted with; but only to enable them to retain, with *certainty* and *exactness*, what they have already a general and competent knowledge of: that they may not be obliged upon every occasion to have fresh recourse to their books or maps, or be under the tiresome necessity of reading the same things again and again, still forgetting them as fast as they read them.

To those who may object, of what use is it to be thus exact, and content themselves with an imperfect and confused remembrance of what they read; it might be answered,

* Hæc ars tota habet hanc vim, non ut totum aliquid ejus ingenii nostris pars nulla fit. pariat et procreet; verum ut ea, quæ sunt orta jam in nobis et procreata, educat atque confirmet. *Cicero de Orat. re*, lib. ii. edit. C. Steph. p. 182.

that such as think it of no use, need not, as I presume they will not, trouble themselves about it; this being designed for the benefit of those only who think it is of use; and who, even at the expense of a little pains, would remember if they could: but, besides this, I believe it will be agreed on all hands, that to instance in history only, a man who *has* an exact notion of time and place, finds incomparably more pleasure, and makes a speedier progress in that study than he who *has not*.

I shall here beg leave to transcribe a passage from Addison's *Dialogues, upon the Usefulness of Ancient Medals*:

"There is one advantage, says Eugenius, that seems to me
" *very considerable*, which is the great help to memory one
" finds in medals: for my own part, I am very much em-
" barrased in the names and ranks of the several Roman
" emperors, and find it difficult to recollect upon occasion
" the different parts of their history: but your medalists,
" upon the first naming of an emperor, will immediately
" tell you his age, family and life. To remember where
" he enters in the succession, they only consider, in what
" part of the cabinet he lies; and by running over in their
" thoughts such a particular drawer, will give you an account
" of all the remarkable parts of his reign."

If this be such a *considerable advantage* in medals, I hope it will be allowed that the following method is of some use, since by it a man may be enabled to remember when any emperor, from Julius Cæsar to Jovian, began his reign, and that as readily as you can name him, by the help of no more than *seven memorial lines*. The like he may do, with the same ease and readiness, by the kings of England, and so proportionably for any other part of sacred or profane history. For, how impracticable soever it may seem at first view, I have reason to believe, that any reader of a

common capacity may, by a regular proceeding and ordinary application, be able readily and exactly to answer *most* if not *all*, the questions that can be proposed, from the following tables.

The manner in which I would advise him to proceed (after having premised that he must not be too hasty at first, but make himself* master of one thing before he proceeds to another, beginning with such particulars as he has most occasion or inclination to retain) is this. First, let him learn to *explain* the several *memorial lines*, according to the method hereafter to be laid down, by consulting the tables to which they belong. 2. This done, let him, by looking upon the tables, learn to make out the lines; and 3. Let him charge his memory with them, by *frequent repetition*. - By this means the words will become *familiar*, how harsh and uncouth soever they may appear at first; and he will find it as easy to know the diameter, distance, and magnitude of any planet; the particular time or age of any remarkable person or thing; the longitude and latitude of any place, and the like, as it is to remember their *names*: the whole art being in effect nothing more than this; *to make such a change in the ending of the name of a place, person, planet, coin, &c. without altering the beginning of it, as shall readily suggest the thing sought, at the same time that the beginning of the word being preserved, shall be a leading or prompting syllable to the ending of it so changed.*

I would willingly here let the reader a little more into my meaning, which he may not otherwise so readily

* Assumendus usus paulatim, ut pauca primum complectamur animo quæ reddi fideliter possint: mox per incrementa tam modica ut onerari se labor ille non sentiat, augenda usu et exercitatione multa continenda est, quæ quidem maxima ex parte memoria constat. *Quintilianus*, lib. x. edit. Gibson. Ox. p. 534.

apprehend, lest he should think there is more difficulty in the matter than there really is. I would ask him, then, if he thinks he could remember to call *CYRUS*, *Cyruts*; *DANIEL*, *Daniull*; *ALEXANDER* the Great, *Aléxita*; *JULIUS CÆSAR*, *Julios Cæsar*; or *MAHOMET*, *Máhomaudd*. If he can but do this, he has nothing else to do (when he is once master of the general key, and knows what letters of the alphabet stand for what figures) in order to remember, without any possibility of being mistaken, that the years in which *Cyrus*, *Alexander*, and *Julius Cæsar* founded their pective monarchies, were as follow:—

Before Christ.

CYRUS—*Cyruts* 536

ALEXANDER—*Aléxita* 331

JULIUS CÆSAR—*Julios* 46

And that the Mahometan æra, or flight of Mahomet was A.D. 622.—In like manner for Geography. Does he think he could remember to call *MADRID* *Madroy-t*, or *JERUSALEM* *Jeruta-ts*, or *BLLENHEIM* *Blenhebav*, or *THESSALY* *Thessjan*? This is all that is required,—to remember that the degree of latitude of Madrid is about 40, and the * longitude about 3; the latitude of Jerusalem about 31, and the longitude 36; that Blenheim is in *Bavaria*, and that what was the ancient Thessaly is the present *Janna*. Thus the reader will observe, that all that he has to do, is for one word to remember another, which only varies from it a little in the *termination*.† And to make even this easier to be remembered,

* The reader is presumed to be so far acquainted with geography, as to be able to tell which is eastern and which is western longitude, when he is informed that the first meridian is fixed at London.

† In many words the variation is very small: as *K. John* *K. Jann*, *Inachus* *Inakus*, *Solon* *Solun*, *HERODOTUS* *Herodofus*, *PLATO* *Platok*, *TRAJAN* *Trajang*, *CLEOPATRA* *Cleopatta*, *GORDIAN*

the *technical* words are thrown into the form of common Latin verse, or at least of something like it. For as there was no necessity to confine myself to any rules of *quantity* or *position*, I hope I need make no apology for the liberty I have taken in having, without regard to either, and perhaps now and then without so much as a regard to the just number of feet, only placed the words in such order as to make them run most easily off the tongue, and succeed each other in the most natural manner. But this by the way for the reader's encouragement.

In the mean time, till he can repeat the *memorial lines*, and to those who are not willing to give themselves any trouble at all in charging their *memory* with them, the *tables* themselves will not be without their use; of which it may be expected that I should give some account.

For the chronology and history I have chiefly consulted* Archbishop Usher's Annals, Marshall's Chronological Tables, the *Rationarium Temporum* of Petavius, Mr. Hearne's *Ductor Historicus*, and Bishop Beveridge's *Institutiones Chronologicae*. The succession of the Assyrian and Babylonian Monarchs, the Kings of Persia, Media, Syria, Egypt, &c. are taken from Dr. Prideaux's Chronological Tables, at the end of his *Connexion*; the times of the flourishing of the Fathers, Heretics, Councils, &c. from Dr. Cave's *Historia Literaria*. The Roman Emperors, and the time of writing of the canonical books of the New Testament, from Mr. Eachard's Roman and Ecclesiastical Histories. The Legatine

GORDIN, the battle of MARATHON Marathonz, ATTILA Attifla, CRÆSUS Crœsuse, AUSTIN Austins, &c. Those which appear more difficult will be full as easy, when familiarised by use.

* It may be some satisfaction to the reader to know, that Mr. Bedford (as he tells us in the Preface to his *Scripture Chronology*) never differs from Dr. Prideaux; and even from the creation of the world to the destruction of Jerusalem, never above five years from Archbishop Usher, the late Bishop of Worcester, or Mr. Marshall,

and Provincial Constitutions from Bishop Gibson's *Codex Juris Ecclesiastici*. The astronomical calculations are from Dr. Derham's *Astro-Theology*. I have also added Mr. Whiston's, from his *Theory of the Earth*. In the geographical part, my chief guide has been Dr. Wells's *Treatise of ancient and Present Geography*, whose Maps may be consulted by the learner. For the coins, weights, and measures, I have chiefly been obliged to Dr. Arbuthnot's books and tables, not without consulting Bishop Cumberland, Dr. Bernard, and Bishop Hooper, and other writers upon that subject, of whom I have made what use I thought convenient. If any prefer other authors, who differ from these, they may easily apply the art to their favourite author, by a change of the words, according to the method laid down. And, indeed, when the reader is perfectly master of it, he would do well to form words for his own use, which perhaps he will sooner remember than those which I had formed for mine; my design being rather to give a specimen of what might be done by it, than a set of *complete* tables in the respective sciences.. If some think I have been deficient in leaving out what they suppose worthy of remembering, others perhaps will think I have been too full. To both these I answer, that I impose no task upon my readers, nor desire to prevent their own improvements: they may add what they please, and pass by what they please. Nor do I think it at all necessary that they should be able to answer *every* particular in the following tables; only this I may venture to affirm, that if they once charge their memory with them, they will find them no burden, and that it is not only practicable, but easy to be done.

It is not to be expected that gentlemen, who have gone through the course of their studies, will trouble themselves to begin again anew, and go regularly through the *whole*;

but it is submitted to those who have the education of young students in the universities and public schools, whether it would not be of some service towards facilitating the progress of their pupils and scholars in useful knowledge, to have them early and thoroughly acquainted with this small treatise. It is the advice of Quintilian, that boys should be used to repeat, as fast as possible, harsh and crabbed words and verses, purposely made difficult, in order to give them a more full and articulate pronunciation. His words are these: * *Non alienum fuerit exigere ab his ætatibus, quo sit absolutius os et expressior sermo, ut nomina quædam versusque affectatæ difficultatis, ex pluribus asperrime coëuntibus inter se syllabis catenatos et veluti confragosos quam citatissime volvant.* The frequent repetition of the following memorial lines would certainly answer *this* end, and at the same time a *much better*; and if I might also recommend, as he does, the *writing* of them too, in order to make the deeper impression, it would doubtless have a good effect, and boys would be treasuring up learning even before they were aware of it. † *Illud non pœnitebit curasse cum scribere nomina puer (quemadmodum moris est) cæperit, ne hanc operam in vocabulis vulgaribus et forte occurrentibus perdat. Protinus enim potest interpretationem linguæ secretioris quam Græci γλώσσας vocant, dum aliud agitur, ediscere, et inter prima elementa consequi rem postea proprium tempus desideraturam.* It may be sufficient to have just hinted these things to those whose more immediate province it is, and who are best qualified to judge what methods may most effectually contribute to the improvement of those under their care.

From the account I have given of it, the reader will

* Institutiones Orat. edit. Gibson. Oxon. p. 12.

† Ibid.

observe, that the method here proposed is perfectly different from that of Simonides the Cean,* so famous among the ancients for being the first inventor of an art of memory, † of whom both Tully and Quintilian speak with respect, and of whose method of ‡ *places* and *images* (*i. e.* of having a repository of ideas, a large house, or the like, divided into several apartments, in each of which you are to place in order a symbolical representation of the things which you would remember) they have given us a very full and particular account, as also of the occasion which first gave rise to it. What improvements have been made of this method by some modern authors, or in what manner or with what success others have set up to teach privately the art of

* Σιμωνίδης ὁ Λεωπρέπους, ὁ Κεῖος, Ὁ ΤΟ ΜΝΗΜΟΝΙΚΟΝ ΕΥΡΩΝ, ἐνίκησεν Ἀθήνησιν διδάσκων, καὶ αἱ εἰκόνες ἐστάθησαν Ἀρμοδίου καὶ Ἀριστογείτονος, ἔτη ΗΗ.—Marm. Arund. i. l. 70.

De Simonide hoc vide Joannem Tzetzem, Chiliade i. cap. 24, ubi victorias reportasse ait quinquaginta sex. Consule etiam Valerium Maximum, lib. iv. cap. 7.

† Non sum tanto ego, inquit, ingenio quanto Themistocles fuit ut oblivionis artem quam memoriæ malim; gratiamque habeo Simouidi illi Ceio quem primum ferunt artem memoriæ protulisse. *Cicero de Oratore*, lib. ii.

‡ Constat artificiosa memoria locis et imaginibus, &c. *Cicero ad Herennium*, lib. iii. edit. Car. Steph. p. 30.

Loca discunt quam maxime spatiosa, multa varietate signata, domum forte magnam, et in multos diductam recessus. In ea quicquid notabile est animo diligenter affigitur, ut sine cunctatione ac mora partes ejus omnes cogitatio possit percurrere.——

—— Tum quæ scriperunt, vel cogitatione complectuntur, et alio signo quo moneantur, notant. Quod esse vel ex re tota potest, ut de navigatione, militia: vel ex verbo aliquo. Nam etiam excidentes, unius admonitione verbi in memoriam reponuntur: sit autem signum navigationis, ut anchora; militiae, ut aliquid ex armis. Hæc itaque digerunt; primum sensum vel locum vestibulo quasi assignant, secundum atrio, tum impluvia circumeunt, nec cubiculis modo aut exedris, sed stratis etiam similibusque per ordinem committunt. Hoc facto, cum est repetenda memoria, incipiunt ab initio loca hæc recensere, et quod cuique crediderunt, repossunt, et eorum imagine admonentur, &c. *Quintiliani Institutiones Orat.* lib. xi. edit. Gibson, p. 561.

memory, I am altogether ignorant. Having found my own method sufficient for myself, I had no inclination to look after any other. What use it may be of to the public, must be left to experience. The novelty of it may perhaps recommend it to the inquisitive and curious; and I desire nothing more than that into whose hands soever it may fall, they would not be prejudiced against it upon the account of its *seeming difficulty*, before any have made *trial* of it; being inclined to think, that to any one, who is at all acquainted with it, it will be found to be so far from being *really* difficult, that nothing can be more easy, or more obvious. The representation of numbers by letters of the alphabet hath been a thing in practice, more or less, almost in every language. The only thing wanting was to make that representation further useful, by substituting vowels, as well as consonants, for the numerical figures, in such manner and proportion, that any number might be formed into a word capable of being articulately pronounced, and consequently more perfectly remembered. Amongst the Jews, indeed, of whose alphabet the vowels are no part, it was a practice, not only to abbreviate sentences and names of many words, by putting together the initial letters of those words, and making out of them an *artificial word* * to express the whole; but also to make use of *natural* words, to represent numbers, when they could meet with such as happened to answer the number they wanted to express. We have several pieces of ingenuity of this kind in the

* As *Rambam* for R-abbi M-oses B-en M-aimon; *Ralbag* for R-abbi L-evi B-en G-erson; *Maccabees* from the abbreviation of the words in the standard of Judas Maccabæus, M-i C-amoka B-aëlim J-ehovah, i. e. *Who is like unto thee amongst the gods, O Lord!* See Prideaux's *Connexion*, part. ii. book 3. Of this nature is what the reader will meet with in the beginning of the geographical part of this method, page 47, &c.

frontispieces of their Bibles, where they give us the *year* of the edition in some word or sentence of Scripture, the letters of which, according to their numerical value, make up the date. I have subjoined* some of them for the entertainment of the learned reader, from Bishop Beveridge's *Arithmetica Chronologica*. And indeed I am not certain whether I owe not to observations of this kind, the first hint of this method, which I have carried so far, and which, doubtless, like all other inventions, is still capable of further improvements.

What is added of the miscellany kind, is a small part of what I had drawn up for my own use, and shews how easily this art may be applied to almost every part of learning. If

* Sed non omittendum est, Judæos in librorum præcipue titulis, ad annum quo impressi sunt indigitandum, literas numerales alio atque quem tradidimus ordine collocare. Enimvero vocem unam vel plures, easque vel seorsim, vel in sententia aliqua Biblica comprehensas excogitant, quarum literæ utut dispositæ numerum propositum valeant. Ex. gr. In Bibliis Sacris a Josepho Athia Amstelodami editis, tria occurrunt frontispicia, unum ad Pentateuchum, ad Prophetas alterum, tertium ad Hagiographa. Primum impressum dicitur *שנת לשני עט ספר מהיר לפק* Anno computi minoris *lingua mea est stylus scribæ prompti*. Ps. xlv. Ubi voces *שנת* ut virgulis superne notatæ annum indigitant quo Pentateuchus impressus fuit. Quotus autem fuit annus computi Judaici minoris statim invenitur, si omnes vocum instarum literæ una cum numerico earum valore ita disponantur, *ע 70 ט 9 ס 60 פ 80 ר 200 = 419*. Ergo annus erat 419 juxta computum Judæorum minorem, de quo videris chronologicas nostias institutiones. Sic et prophetæ impressi dicuntur *בשנת משה נה הוין לפק* Anno *Onus vallis visionis* computi minoris. Is. xxii. Ubi literæ *משה נה הוין* valent 420. Frontispicium autem ad *כתובים* sive Hagiographa impressum est anno *כתובים באצבע אלהים* scripta digito Dei, ubi primæ duæ literæ vocis *כתובים* annum eundem 420 significant. Nam *ת* valet 400, et *כ* 20. Hunc etiam in modum Talmud Basileæ impressum dicitur *שנת פדות שלה לעמי* Anno *redemptionem misit populo suo*. Ps. cxi. Ubi literæ vocis *שלה* valent 338. Denique Seder Tephilloth Hispaniensis, sive Judæorum Hispanorum liturgia ingeniosissime impressa, dicitur *שנת הוצא* Hoc Anno, *i. e.* Anno 413, quem literæ *הוצא* indigitant. Lib. i. c. 6. p. 211, 212. 4to. 1669.

upon the whole this attempt shall be found to contribute to the more speedy attainment of useful knowledge, and to give men of reading, instead of an imperfect and confused remembrance of what they read, a satisfactory certainty and exactness, as I cannot think the little time I have spent upon it ill bestowed in respect of my own improvement, so I shall be glad that it proves of as much benefit to others as I have found it to myself.

Recommendatory character of GREY'S MEMORIA TECHNICA, written by the Rev. Mr. LAWSON, some years Head Master of a Foundation Grammar School, at Wolverhampton; given in the preface of a work published by him for the use of his pupils.

THE probable reasons why GREY'S MEMORIA TECHNICA has not been more generally received in Grammar Schools, where any separate regard is paid to History and Chronology, are, that it abounds with matter which has not a strict relation to classical authors, and that it is extended to branches of knowledge, such as Geography, Astronomy, &c. where the necessity of the art is not so evident, and the difficulty of application much greater.

In defence of this art as a subsidiary aid to young persons in History and Chronology. I will not say, that by the help of it the weakest memory may be able to retain what the strongest could not retain without it; but I have no scruple in recommending it to those who wish to avoid the necessity of perpetual recurrence to chronological maps or tables, and who prefer accuracy and fidelity to confused recollection and imperfect remembrance. It does not, indeed confer a new faculty, but it teaches us to manage with skill the capacity of the memory, and contrives such helps as greatly assist its natural powers.

CONTENTS.



GREY'S MEMORIA TECHNICA.

SECTION I.

A General View of the principal Part of this Method.

SECTION II.

The Application of this Art to Chronology and History.

	Page.
I. General Epochas and Æras, Ecclesiastical and Civil.	7
II. Some of the more eminent Epochas	8
III. Chronological and Historical Miscellanies before Christ	9
IV. Chronological and Historical Miscellanies after Christ	10
V. The Regal Table of England since the Conquest, and some of the most remarkable Princes before it	12
VI. Chronological Miscellanies since the Conquest	14
VII. The Patriarchs before and after the Flood	16
VIII. The Patriarchs, &c. according to their Years before Christ	17
IX. The Judges of Israel, from the death of Moses to Samuel	18
X. The Kings of Israel and Judah.....	19
XI. The Prophets	20
XII. The Kings of Assyria and Babylon after the Dissolu- tion of the ancient Assyrian Empire upon the Death of Sardanapalus	21
XIII. Kings of Egypt, Media, and Persia.....	23
XIV. The different Names of the same Persons in Scripture and in Profane Authors.....	25
XV. Kings of Egypt and Syria, after the Death of Alex ander the Great	26
XVI. Jewish High Priests, &c. after the Return from the Captivity	28
XVII. Founders, &c. of ancient Monarchies	29

XVIII.	Grecian History	30
XIX.	Grecian Lawgivers, Philosophers, and Poets.....	32
XX.	Roman History	33
XXI.	The Consular State to Julius Cæsar.....	<i>ib.</i>
XXII.	The Twelve Cæsars.....	34
XXIII.	The Roman Emperors from Nerva to Jovian.....	35
XXIV.	The Division of the Empire	37
XXV.	Eastern and Western General Councils.....	39
XXVI.	Fathers, Heretics, &c.....	40
XXVII.	Popes, Authors, famous Men, &c.....	42
XXVIII.	The Founders of the States of Europe.....	44
XXIX.	The Times of the writing of the Canonical Books of the New Testament.....	45
XXX.	The Provincial and Legatine Constitutions, accord- ing to the order in which they were made	46

SECTION III.

The Application of this Art to Geography.

I.	The general Divisions of Europe, Asia, Africa, and America	49
II.	The particular Divisions of Northern Europe	50
III.	The particular Divisions of Middle Europe.....	51
IV.	The particular Divisions of Southern Europe	53
V.	England, Wales, Ireland, and Scotland.....	54
VI.	Chief Cities and remarkable Places in France, Ne- therlands, Germany, Spain, and Turkey.....	57
VII.	Remarkable Places (<i>sparsim</i>) in Europe.....	58
VIII.	Chief Cities and remarkable Places (<i>sparsim</i>) in Asia, Africa, and America	60
IX.	Latitude and Longitude of the most remarkable Places	61
X.	Distance of chief Cities, &c. from London, in English Miles	64
XI.	The Proportions of the Kingdoms of Europe to Great Britain, that Island being the Unit.....	65
XII.	Situation of the European, Asiatic, African, and American Islands	66
XIII.	The most remarkable of the lesser British Islands..	69
XIV.	Ancient Europe, Asia, and Africa.....	70
XV.	Ancient Italy and Greece, Asia Minor, Syria, and Palestine.....	71
XVI.	Ancient Gallia, Germania, Iberia, Britannia	74
XVII.	Remarkable Places in ancient Geography.....	75
XVIII.	The correspondence of ancient and present Geography	78
XIX.	Ancient and present Seas, Straits, Gulfs, Islands, Rivers, Towns	79
XX.	GEOGRAPHIA SACRA. The Plantation of the Earth after the Flood	82
XXI.	Division of the Holy Land in the Old and New Testament	84
XXII.	The most remarkable Rivers, with the Places where they rise, and the Seas into which they fall. ...	85

SECTION IV.

The Application of this Art to Astronomy and Chronology.

I. The Diameters, &c. of the Planets in English Miles, according to Dr. Derham's Astro-theology.....	87
The Magnitudes or solid Contents in Cubic Miles of the larger Planets	88
The Ambit or Circumference of Jupiter, &c.	<i>ib.</i>
II. The Diameters, &c. of the Planets, according to Mr. Whiston, and their Distances from the Sun	89
The Proportion of the Quantity of Matter in the heavenly Bodies, the Weight of Bodies on their Surface, and their Densities	90
III. The periodical Times of the Revolutions of the Planets	91
The Distances of the Planets from the Sun in decimal parts	<i>ib.</i>
The Motion of the Sun, Jupiter, and the Earth round their Axes	92
The three Comets, whose Periods were thought to have been discovered	<i>ib.</i>
IV. Chronological Notes concerning the Lunar and Solar Month and Year; the Metonic, Calippic, Dionysian, and Julian Periods, &c.	93
To find the Year of the Julian Period, the Years of the other Cycles being given	94

SECTION V.

The Application of this Art to Coins, Weights, and Measures.

I. Hebrew, Attic, Babylonish, Alexandrian, and Roman Money.....	98
II. Measures of Length, &c.	100
English and Grecian Measures of Length.....	<i>ib.</i>
Roman and Jewish Measures of Length	102
III. The Proportion of the foregoing Measures to English Measures	104
IV. Superficial Measures, &c.	105
V. Measures of Capacity	106
English Wine Measure.....	<i>ib.</i>
English Corn Measure	107
Grecian Measures of Capacity.....	<i>ib.</i>
Roman Measures of Capacity	108
Jewish Measures of Capacity	109
VI. Measures of Capacity reduced to English Measures ..	110
VII. Weights	112
Roman and Grecian lesser Weights.....	113
VIII. Ancient Weights reduced to English Troy Weights...	115
IX. Jewish and Roman Money, according to Bishop Cumberland	116
Decimal Tables for the more easy Reduction of ancient Coins, Weights, and Measures.....	117

SECTION V.

Miscellanea.

The Proportion of the Diameter to the Circumference of a Circle, the Area of a Circle, &c.	125
The Area of an Ellipsis, the Surface and Solidity of a Sphere	126
The quantity of Vapours raised out of the Sea	<i>ib.</i>
The quantity of Water the Mediterranean receives from the Rivers that fall into it.....	127
The Velocity of Sound, Light, &c.	128
The Jewish Months.....	129
The Grecian Months.....	<i>ib.</i>
The Jewish and Christian Æra of the Creation.....	130
The Days of the Month on which the other noted Epochas began.....	<i>ib.</i>
The specific Gravities of some Metals and other Bodies.....	131
Numerus Dignitatum, &c. tempore Camdeni	132
The Temple of the Winds	<i>ib.</i>
Roman Militia.....	133
Roman Law	<i>ib.</i>
The Bishops who refused their Assent to the 'Ομοούσιον.....	134
The ten Persecutions.....	<i>ib.</i>
The Electors of Germany.....	<i>ib.</i>
The Quinquarticular Controversy	135
The seven Precepts of the Sons of Noah.....	<i>ib.</i>
The Misnah, Gemarah, and Talmud.....	136
Characteres Arithmetici Græci et Hebraici.....	<i>ib.</i>
The Ages of Christianity, according to what was most remarkable in each Century	137
The Division of the Roman Empire into Præfectures and Dioceses.....	<i>ib.</i>
The Dimensions of the Ark and Temple.....	138
Computation of the Cost, Vessels, Vestments, &c. of Solomon's Temple	<i>ib.</i>
The number of those who returned from the Captivity	139
The difference of Talents	140
A Specimen how this Art may be made use of to remember particular Statutes	<i>ib.</i>

LOWE'S MNEMONICS DELINEATED.

ANNUITIES	176	Man	179
Arithmetic	143	Measures	147
Arks	176	Memorial Verses.....	181
As, Roman	144	Meridians	172
Astronomy	157	Monarchies.....	175
Atmosphere	177	Money	144
Bible	173	Months.....	157
Chronology.....	162	Moon	158
Coins	144	Multiplication	150
Cycle	160	Numerical Letters.....	<i>ib.</i>
Divisibility	177	Practice.....	151
Dominical Letter.....	160	Rivers	180
Ductility	178	Rule of Three	153
Easter Table	166	Subtraction	154
England	172, 174	Sun.....	160
Epochas.....	163	Tabulating	154
Evaporation	178	Testament.....	174
Festivals	165	War	176
Geography	167	Water	171
History	173	Weights.....	155
Land.....	168	Zodiac	159

APPENDIX.....187.



MEMORIA TECHNICA.

SECTION I.

THE principal part of this method is briefly this: to remember any thing in history, chronology, geography, &c. a word is formed, the beginning whereof being the first syllable or syllables of the thing sought, does, by frequent repetition, of course draw after it the latter part, which is so contrived as to give the answer. Thus, in history, the Deluge happened in the year before Christ two thousand three hundred and forty-eight; this is signified by the word *Deletok*: *Del* standing for *DEL*uge, and *etok* for 2348. In astronomy, the diameter of the sun (*SOLIS* Diameter) is eight hundred and twenty-two thousand one hundred and forty-eight English miles; this is signified by *Sol-diked-áfei*; *Sol-di* standing for the diameter of the sun, *ked-áfei* for 822,148; and so of the rest, as will be shown more fully in their proper place. How these words come to signify these things, or contribute to the remembering them, is now to be shown.

The first thing to be done is to learn exactly the following series of vowels and consonants, which are to represent the numerical figures, so as to be able, at pleasure, to form a *technical* word, which shall stand for any number, or to resolve a word already formed into the number which it stands for:

<i>a</i>	<i>e</i>	<i>i</i>	<i>o</i>	<i>u</i>	<i>au</i>	<i>oi</i>	<i>ei</i>	<i>ou</i>	<i>y</i>
1	2	3	4	5	6	7	8	9	0
<i>b</i>	<i>d</i>	<i>t</i>	<i>f</i>	<i>l</i>	<i>s</i>	<i>p</i>	<i>k</i>	<i>n</i>	<i>z</i>

Here *a* and *b* stand for 1, *e* and *d* for 2, *i* and *t* for 3, and so on.

See also other signs at page 4.

These letters are assigned arbitrarily to the respective figures, and may very easily be remembered. The first five vowels in order naturally represent 1, 2, 3, 4, 5. The diphthong *au*, being composed of *a* 1 and *u* 5, stands for 6; *oi* for 7, being composed of *o* 4 and *i* 3; *ou* for 9, being composed of *o* 4 and *u* 5. The diphthong *ei* will easily be remembered for *eight*, being the initials of the word. In like manner for the *consonants*, where the initials could conveniently be retained, they are made use of to signify the number; as *t* for *three*, *f* for *four*, *s* for *six*, and *n* for *nine*. The rest were assigned without any particular reason, unless that possibly *p* may be more easily remembered for 7 or *septem*, *k* for 8 or *ὀκτώ*, *d* for 2 or *duo*, *b* for 1, as being the first consonant, and *l* for 5, being the Roman letter for 50, than any others that could have been put in their places.

The reasons here given, as trifling as they are, may contribute to make the series more readily remembered; and if there was no reason at all assigned, I believe it will be granted that the representation of nine or ten numerical figures by so many letters of the alphabet, can be no great burthen to the memory.

The series, therefore, being perfectly learned, let the reader proceed to exercise himself in the formation and resolution of words in this manner:

10	325	381	1921	1491	1012	536	7967
<i>az</i>	<i>tel</i>	<i>teib</i>	<i>aneb</i>	<i>afna</i>	<i>bybe</i>	<i>uts</i>	<i>pousoi</i>
431	553	680	&c.				
<i>fib</i>	<i>lut</i>	<i>seiz</i>	&c.				

And as, in numeration of larger sums, it is usual to point the figures at their proper periods of thousands, millions, billions, &c. for the more easy reading of them, as 172,102,795, one hundred and seventy-two millions one hundred and two thousand seven hundred and ninety-five; so, in forming a word for a number consisting of

many figures, the syllables may be so conveniently divided, as exactly to answer the end of pointing. Thus, in the instance before us, which is the diameter of the orbit of the earth in English miles, the *technical* word is D-orb-Tér**boïd-âze-poul**; the beginning of the word, D-orb-Tér, standing for the diameter of the orbit of the earth (D-iameter ORBITÆ TERRÆ), and the remaining part of it, *boïd-âze-poul*, for the number 172,102,795.

N. B. Always remember that the diphthongs are to be considered but as *one letter*, or rather, as representing only *one figure*. Note also, that *y* is to be pronounced as *w*, for the more easily distinguishing it from *i*, as *syd*=602, pronounce *swid*, *typ*=307, pronounce *twip*.

The reader will observe, that the same date or number may be signified by different words, according as vowels or consonants are made choice of, to represent the figures or to begin the words with, as,

325 *tel*, or *idu*, 154 *buf*, or *blo*, or *alf*, or *alo*, 93,451 *ni-ola*, or *out-fub*, or *ni-fla*, or *out-olb*, &c.

This variety gives great room for choice, in the formation of words, of such terminations as by their *uncommonness* are most likely to be remembered, or by any *accidental relation* or *allusion* they may have to the thing sought. Thus the year of the world in which Æneas is supposed to have settled in Italy is 2824; but as this may be expressed either by *ekef* or *deido*, I choose rather to join *deido* to Æneas, and make the technical word *Ænedeido* than *Ænekef*, for a reason which I think is obvious. Thus King John began his reign A. D. 1199 (one thousand being understood to be added, as I shall show hereafter); but as this may be expressed by *anou*, or *boun*, or *ann*, I make choice of the last, for then it is but calling him *Jann* instead of John, and you have the time almost in his name. Thus Inachus King of Argos began his reign in the year before Christ 1856; with a small variation in the spelling, it is his name *Inakus*. More instances of this kind see in page ix. of the Introduction.

To go on with our art: it is further to be observed, that *z* and *y* being made use of to represent the cipher, where many ciphers meet together, as in 1000, 1000000, &c. instead of a repetition of *azyzyzy*, which could neither be easily pronounced nor remembered, *g* stands for hundred, *th* for thousand and *m* for million. Thus *ag* will be 100, *ig* 300, *oug* 900, &c.; *ath* 1000, *oth* 4000, *otho* or *othf* 4004, *peg* 7200, *dig* 2300, *lath* 51000, *am* 1000000, *azmoth* 10,004,000, *sumus* 65,000,056, *loum* 59,000,000, &c. The solid content of the earth (TERRÆ MAGNITUDO) is two hundred and sixty-four thousand eight hundred and fifty-six millions of cubic miles; this is expressed by the word Ter-magnitéso-klaum; Ter-magnit standing for Terræ Magnitudo; éso-klaum for 264,856,000,000, the number of cubic miles.

It will be sometimes also of use to be able to set down a fraction, which may be done in the following manner: let *r* be the separatrix between the numerator and the denominator, the first coming *before*, the other *after* it; as *iro* $\frac{3}{4}$; *urp* $\frac{5}{7}$; *pourag* $\frac{79}{100}$ or $\cdot 79$; *north* $\frac{94}{100}$ or $\cdot 94$, &c. Where the numerator is 1, or unit, it need not be expressed, but begin the fraction with *r*, as $\frac{1}{2}$ *re*, $\frac{1}{3}$ *ri*, $\frac{1}{4}$ *ro*, &c. So in decimals, $\cdot 01$ or $\frac{1}{100}$, *rag*; $\cdot 001$ or $\frac{1}{1000}$, *rath*.

Thus I have given the reader a general view of the principal part of this method, and now proceed to show how I have applied it to history, geography, astronomy, and other parts of useful learning; and, having explained a line or two in each, leave the rest to his own industry and sagacity; and though the geographical parts are not, in this edition, completely modernized, according to the present divisions of the earth, neither are the recent discoveries in astronomy noticed here; yet it is hoped that sufficient is done to answer the student's purpose.

SECTION II.

THE APPLICATION OF THIS ART TO CHRONOLOGY
AND HISTORY.

THE ages of the world before our Saviour's time are, by chronologers, generally divided into six: the first, from the creation to the deluge; the second, from the deluge to the call of Abraham, &c. according to the following periods:

	Bef. Christ.
1. The CREATION of the world	4004
2. The universal DELUGE	2348
3. The call of ABRAHAM	1921
4. Exodus, or the departure of the Israelites from Egypt	1491
5. The foundation of Solomon's TEMPLE	1012
6. CYRUS, or the end of the captivity	536
The birth of Christ.	

All this is expressed in one line belonging to Table I., as follows:

Crothf, Déletok, Abareb, Exáfna, Témbybe, Cyruts.

Cr denotes the Creation, *othf* 4004, Del the Deluge, Ab the calling of Abraham, Ex Exodus, Tem the Temple, and Cyr Cyrus. The technical endings of each represent the respective year, according to the rules already laid down.

I shall explain two lines more.

Nic-Sil-Con-Aritel, Co-Da-Thé-Mateib, Eph-Ce-The-
Nésfib,
Chál-Le-Mar-Eudíola, Co-Vi-Júst-Olut, C-Ag-Co-Po-
Monseiz.

These two lines are a short history of the first six General Councils; and every syllable has its distinct signification. The *first* represents the place where it was held; the *second* shows who was pope at that time; the *third* under what emperor; the *fourth* against what heretic; the *fifth* in what year of our Lord. Thus the first word is Nic-Sil-Con-Aritel; Nic denotes the council of NICE, Sil pope SILvester, Con the emperor CONSTANTINE, Ari the heretic ARIUS, *tel* the year 325. The second word is Co-Da-Thé-Mateib; Co denotes the council of Constantinople, Da pope DAMASUS, Thé the emperor THEodosius, Ma the MACEDONIANS, *teib* 381. The third is Eph-Ce-The-Nésfib; Eph the council of EPHesus, Ce pope CElestine, The the emperor THEodosius, junior, Nes the NESTORIANS, *fib* the year 431. The fourth is Chál-Le-Mar-Eudíola; Chál the council of CHALCEDON, Le pope LEO, Mar the emperor MARCIAN, Eudí the errors of EUTYCHES and DIOSCORUS, *ola* the year 451. The fifth is Co-Vi-Júst-Olut; Co stands again for Constantinople, Vi pope VIGILIUS, Júst the emperor JUSTINIAN, O the errors of O-rigen, *lut* the year 553. The sixth is C-Ag-Co-Po-Monseiz; C stands again for Constantinople, Ag for pope AGATHO, Co-Po the emperor CONSTANTINE POGONATUS, Mon the MONOTHELITES, *seiz* the year 680.

By this specimen the reader will be able to judge what he is to expect from the following Essay, and what it will cost him to make himself master of it. I would by no means have him discouraged at the difficulty which, at first view, he may apprehend there is, in charging his memory with so many harsh and barbarous lines; for though they may appear to be so to a person unacquainted with them, and, as such, difficult to be remembered, yet when frequent repetition has made them familiar, what can be more easy than to supply the remaining part of a word which you are prompted with the beginning of? as, for instance, to complete Cr— Del— Ab— Ex— Tem— Cyr— with their technical endings, and make them up into the following line, already explained:

Crothf, Déletok, Abaneb, Exáfna, Témbybe, Cyruts.

I have only further to desire the reader to take notice, that, for his greater ease, that part of the memorial words which represents the numbers or dates, is distinguished by *italic* characters; that part which is *roman* answers to the small capitals in the Tables.

TABLE I.

GENERAL EPOCHAS AND ÆRAS, ECCLESIASTICAL AND CIVIL.

	Ref. Christ.
The CREATION of the world— <i>Crothf</i>	4004
The universal DELUGE— <i>Déletok</i>	2348
The call of ABRAHAM— <i>Abaneb</i>	1921
EXODUS of the Israelites— <i>Exáfna</i>	1491
The foundation of Solomon's TEMPLE— <i>Témbybe</i>	1012
CYRUS, or the end of the captivity— <i>Cyruts</i>	536
The birth of Christ.	
The destruction of TROY— <i>Tróyabeit</i>	1183
The first OLYMPIAD— <i>Olympois</i>	776
The building of ROME— <i>Romput</i>	753
ÆRA of NABONASSAR— <i>Ær-Nabonáspop</i>	747
The PHILIPPIC æra, or the death of Alexander— <i>Phílido</i>	324
The æra of CONTRACTS, or of the Seleucidæ, called in the book of Maccabees the æra of the kingdom of the Greeks— <i>Contractad</i>	312
Anno Domini	
The DIOCLESIAN æra, or the æra of Martyrs— <i>Diocleseko</i>	284
The æra of the Hegira, or flight of MAHOMET— <i>Máhomaudd</i>	622
The æra of YEZDEGIRD, or the Persian æra— <i>Yezsid</i>	632

The Memorial Lines.

Crothf, *Déletok*, *Abaneb*, *Exáfna*, *Témbybe*, *Cyruts*.
Tróyabeit, *Olympois*, *Romput* & *Ær-Nabonáspop*.
Phílido, *Contractad*,—*Diocléseko*, *Máhomaudd*, *Yézsíd*.

Though I have no where (except in the ages of the patriarchs before Abraham) made use of any other æra than that of the years before and after Christ, because those being known, it is easy to find the correspondent year of any other æra, according to the common rules laid down in books of chronology, which I shall suppose the reader to be acquainted with; yet, in the more eminent epochas, that he may be able, at first glance, to have a notion of the time of any thing or person which he may meet with in authors making use of the Julian period and the æra of the creation of the world, I have also added them in the following Table.

TABLE II.

	Jul. Period.	Au. Mun.
The CREATION of the world	710	— 1
The universal DELUGE	2366	— 1656
The call of ABRAHAM	2793	— 2083
EXODUS of the Israelites	3223	— 2513
The foundation of Solomon's TEMPLE	3702	— 2992
CYRUS, or the end of the captivity	4178	— 3468
The destruction of TROY	3531	— 2821
The first OLYMPIAD	3938	— 3228
The building of ROME	3961	— 3251
The birth of CHRIST	4714	— 4004

The Memorial Lines.

Créppaz, Delpétsau, Démasus, Abmezki, Abpépni,
Expidet, Exmélat, Tempipze, Temménne, Cymúntosk,
Cyrpoboik, Troypíltá, Trómekeb, Olympinik, Olmtéek,
Rompinsa, Rómidub, Chrismúndothf, Chrisperifoibo.

EXPLANATION.

The first syllable points out the epocha as before; the addition of p or peri denotes that it is the year of the Julian period; the addition of m or mund, that it is the year of the world.

TABLE III.

CHRONOLOGICAL AND HISTORICAL MISCELLANIES BEFORE
CHRIST.

	Bef. Christ.
Building of the tower of Babel— <i>Bábedit</i>	2233
Mizraim settles in Egypt— <i>Mizdakk</i>	2188
Destruction of Sodom and Gomorrah— <i>Sódakoup</i>	1897
Death of JOSEPH— <i>Joséphasil</i>	1635
ANNUUS S-abbaticus, or the first Sabbatical year—	
<i>An-Safff</i>	1444
SAUL first King of Israel— <i>Sauláznu</i>	1095
JEROBOAM, or the defection of the ten tribes—	
<i>Jéronoil</i>	975
SALMANESER King of Assyria takes Samaria, and extinguishes the kingdom of Israel— <i>Salmpeb</i>	721
HOLOFERNES invadeth Judæa, and is slain by Judith— <i>Holoféslu</i>	655
NINEVEH destroyed by the Medes and Babylonians — <i>Ninévsad</i>	612
JEHOIAKIM taken prisoner by Nebuchadnezzar, from whence began the 70 years captivity of the Jews— <i>Jehóiasys</i>	606
ZEDEKIAH sent in chains to Babylon, and Jerusalem utterly destroyed by Nebuzaradan, captain of the guard to Nebuchadnezzar; the end of the king- dom of Judah— <i>Zedleik</i>	583

[N.B. The kingdom of Israel—*Isrelo* } lasted { 254 } years.
The kingdom of Judah—*Judosk* } 468]

The BABYLONIANS having revolted from DARIUS Hystaspes, are beseiged by him, and Babylon taken, after a siege of 20 months, by the strata- gem of Zopyrus— <i>Bab-Dár-Hylas</i>	516
SARDIS burnt by the Athenians, in confederacy with the Ionians, which gave the first rise to the Persian war against the Greeks— <i>Sardug</i>	500

	Bef. Christ.
ZOROASTRES appears at the Persian court—Zoroafne	492
ESTHER made concubine to Ahasuerus—Esthosa	461
The feast of PURIM instituted in memory of the defeat of Haman's plot for the destruction of the Jews—Purolt	453
EZRA sent to be governor of Judæa—Ezrolk	458
NEHEMIAH sent governor to Judæa, rebuilds the walls of Jerusalem—Nehemiſſu	445
The temple on Mount GERIZIM began to be built by Manasseh—Gerizózei	408
The translation of the SEPTUAGINT—Septepoi	277
JUDAS M-accabæus—Ju-Mass	166

The Memorial Lines.

Bábedit & Mizdakk, Sódakoup, Joséphasil, An-Safff,
Sauláznu, Jéroneil, Salmpeb, Holofeshu, Ninévsad,
Jehoíasys, Zedleik, [duravit Isrelo, Judosk],
Bab-Dâr-Hylas, Sardug, Zoroafne, Esthosa, Purolt,
Ezrolk, Nehemiſſu, Gerizózei, Septepoi, Ju-Mass.



TABLE IV.

CHRONOLOGICAL AND HISTORICAL MISCELLANIES AFTER
CHRIST.

	Anno Domini.
DISPERSIO JUDÆORUM, or the destruction of Jeru- salem by Titus—Dis-Judpa	71
LUCIUS of Britain, the first Christian king—Lúcibup	157
ZENOBIa, Queen of Palmyra, led in triumph to Rome by Aurelian—Zenobdoid	272
ECCLESIAE PAX, or the establishment of Christi- anity by Constantine—Ecclesi-Paxtad	312
St. ALBAN the British Protomartyr—Albantyt	303
CLOVIS the first Christian King of France—Clóvoka	481
LINGUA LATINA, or the Latin tongue ceases to be commonly spoken in Italy—Ling-Latleip	587

Anno Domini.

- AUGUSTINE the monk, sent by Gregory the Great from Rome, converts *ETHELbert King of Kent*
 —*Aug-Ethelúnau* 596
- CHARLEMAGNE declared Emperor of the West—
Charlmeig 800
- The CROISADE, or Holy War—*Croisáznu* 1095
- HYBERNIA, or the conquest of Ireland—*Hybaboid* . 1172
- OTTOMAN the founder of the present Turkish empire
 —*Ottadoup* 1297
- The Mariner's COMPASS found out—*Compatze* . 1302
- The PAPAL seat removed to Avignon—*Pap-Avatyl* 1305
- WALTER LOLLARD, with many of his followers, burnt in Austria, for opposing the Romish superstitions
 —*Lolatub* 1351
- GUNPOWDER invented in Germany by a monk—
Gunpátfo 1344
- TAMERLANE the Tartar overcomes *BAJAZET* the Turk, and puts him in an iron cage. (The Great MOGUL is descended from him.)—*Tam-Bajatóun (Mog)* . 1399
- SCANDERBERG, Prince of Epirus, famous for his victories over the Turks—*Scanderboft* 1443
- The invention of PRINTING—*Prinafon* 1449
- CONSTANTINOPLE taken by the Turks, and an end put to that empire—*Constantinobóli* 1453
- CHRISTOPHER COLUMBUS, a native of Genoa, discovers Cuba and Hispaniola—*Columbont* 1493
- N. B.* The southern continent of America was discovered about four years after by Americus Vesputius, from whom it took its name.

The Memorial Lines.

Dis-Judpa, Lúciup, Zenobdoid, Ecclesi-Paxtad, Albantyt, Clóvoka, Ling-Latleip, Aug-Ethelúnau, Charlmeig, Croisáznu, Hybaboid, Ottadoup, Compatze, Pap-Avatyl, Lolatub, Gunpátfo, Tam-Bajatóun (Mog), Scanderboft, Prinafon, Constantinobóli, Columbont.

TABLE V.

THE REGAL TABLE OF ENGLAND SINCE THE CONQUEST, AND
SOME OF THE MOST REMARKABLE PRINCES BEFORE IT.

	Bef. Christ.
CASIBELAunus chosen chief commander by the Britons against the invasion of Julius Cæsar— Casibelud	52
	Anno Domini.
Queen BOADICEA, the British heroine, being abused by the Romans, raises an army and kills 7000— Bóadaup	67
VORTIGERu invited the Saxons to the assistance of the Britons against the Scots and Picts—Vor- tigfos	446
HENGist, the Saxon, erected the kingdom of Kent, the first of the heptarchy—Hengful	455
King ARTHUR, famous for his powerful resistance and victories over the Saxons—Arthlaf . . .	514
EGBERT, who reduced the heptarchy, and was first crowned sole monarch of England—Egbekek .	828
ALFRED, who founded the university of Oxford— Alfrékpe	872
CANute the Dane—Canbau	1016
Edward the CONFESSOR—Confésfe	1042
William the CONqueror—Wil-consau . Oct. 14 .	1066
William RUFUS—Rufkoi Sept. 9 .	1087
HENRY I.—Henrag Aug. 2 .	1100
STEPHEN—Stephbil Dec. 2 .	1135
HENRY the SECOND—Hen-sécbuf . . Oct. 25 .	1154
Richard I.—Ricbein July 6 .	1189
J-ohn—Jann April 6 .	1199
HENRY the THIRD—He-thdas Oct. 19 .	1216
Edward I.—Eddoid Nov. 16 .	1272
EDvardus SECUNDUS—Ed-setyp . . . July 7 .	1307
EDvardus TERTIUS—Ed-tertes . . . Jan. 25 .	1326
Richardus SECUNDUS—Ri-setóip . . . June 21 .	1377
Henry the Fourth—He-fotoun . . . Sept. 20 .	1399

Anno Domini.

HENRY the Fifth—He-fiśád	Mar. 20	1412
HENRY the Sixth—Hén-sifed	Aug. 31	1422
EDWARDUS QUARTUS—Ed-quarfauz . . .	Mar. 4 .	1460
EDWARD the Fifth } —E-fi-Rokt . . .	{ April 9 .	1483
RICHARD III. . . . }	{ June 22	1483
HENRICUS SEPTIMUS—Hen-sépfeil . . .	Aug. 22	1485
HENRICUS OCTAVUS—Hen-oclyn	April 22	1509
EDWARDUS SEXTUS—Ed-sexlos	Jan. 28 .	1546
MARY—Marylut	July 6 .	1553
ELIZABETH—Elzluk	Nov. 17 .	1558
JAMES I.—Jamsyd	Mar. 24	1602
CAROLUS PRIMUS—Caro-primsel	Mar. 27	1625
CAROLUS SECUNDUS—Car-secsok	Jan. 30 .	1648
JAMES II.—Jamseif	Feb. 6 .	1684
WILLIAM and Mary—Wilseik	Feb. 13 .	1688
ANNE—Anpyb	Mar. 8 .	1701
GEORGE I.—Gëopbo	Aug. 1 .	1714
GEORGE II.—Gëo-sepdoi	June 11	1727
GEORGE III.—Gëo-thpauz	Oct. 25 .	1760
GEORGE IV.—Gëo-quarkez	Jan. 29 .	1820

The Memorial Lines.

Casibelud, Bóadaup, Vortigfos, Hengful & Arthlaf,
Egbekek, Alfréke, Canbau, Confesfe.

Wil-consau, Rufkoi, Henrag, —

Stephbil & Hen-sécbuf, Riebein, Jann, He-thdas & Eddoid,
Ed-setyp, Ed-tertes, Ri-setóip, He-fotoun, He-fiśádque,
Hén-sifed, Ed-quarfauz, E-fi Rokt, Hen-sépfeil, Hen-oclyn,
Ed-sexlos, Marylut, Elzluk, Jamsyd, Caro-primsel,
Car-secsok, Jamseif, Wilseik, Anpyb, Gëopbo—pdoi—
pauz—kez.

N. B. After Canute inclusive, one thousand is to be added to each. It was thought unnecessary to express it, it being a thing in which it is impossible that any one should mistake.

If it be desired to remember in what month, and day of the month, each king began his reign, it may be done by the following lines:

Wil-*tbó-sou-fat*, Steph-de, Jam-chef-fau, Ri-ls-jeb-ed,
 El-*nap*,
 Hen-gé-tel-an-sez-chez-gib-ged-ped, Geor-ga-jab, An-
 chei,
 Car-chep-riz, Ma-ls, Jo-ps, Ed-nás-loi-rél-cho-pou-rekque.

EXPLANATION.

The *italic* letters represent the day of the month; the letter immediately preceding represents the month itself, r standing for January, f for February, ch for March, p for April, m for May, j for June, l for July, g for August, s for September, t for October, n for November, and d for December.

Thus Steph-de, Steph King Stephen, de Dec. 2. El-*nap*, El Elizabeth, *nap* Nov. 17. In words of three or more syllables, the first syllable stands for all the kings of the same name, and the following syllables in order to answer to the first, second, third, &c. of that name. So Jam-chef-fau; Jam denotes James I. & II., chef (viz. March 24) belongs to James I., and *fau* (viz. Feb. 6) to James II. So Ri-ls-jeb-ed; Ri denotes all the Richards, ls (viz. July 6) belongs to Richard I., jeb (viz. June 21) to Richard II., and *ed* (viz. 22 of the same month) to Richard III.

If this be thought either too difficult or too minute, the reader may pass it over.

 TABLE VI.

CHRONOLOGICAL MISCELLANIES SINCE THE CONQUEST.

	Anno Domini.
Jerusalem regained from the Turks and Godfrey of BULLOIGNE made king of it—God-Bulnou . . .	1099
The INQUISITION first erected against the Albigenses—Inquisded . . .	1222
The Confirmation of Magna CHARTA by King Henry III.—Charteel . . .	1225

Anno Domini.

Wat TYLER's rebellion suppressed— <i>Tylíka</i> . . .	1381
Jack CADE's rebellion suppressed— <i>Cadeſtly</i> . . .	1450
MARTIN LUTHER began to preach in Germany against indulgences, and other errors of the Church of Rome— <i>Mar-Luthlap</i>	1517
The name of PROTESTANTS first began on occasion of the protestation the Lutherans made against the decree of the chamber of Spire against them— <i>Protalen</i>	1529
The SMALCALDAN league, or agreement made between the Protestants of Germany for their mutual defence at Smalcald— <i>Smalcalloz</i>	1540
The Council of TRENT began DEC. 13— <i>Tren-decat-alfu</i>	1545
The MASSACRE of Protestants at PARIS— <i>Mas-Paraloid</i>	1572
The UNITED P-rovinces, under the protection of William, Prince of Orange, throw off the Spanish yoke— <i>Un-Ploin</i>	1579
The SPANISH INVASION— <i>Sp-invukkk</i>	1588
The GUNPOWDER treason— <i>Powdsyl</i>	1605
The famous rebellion at Naples, on occasion of the grievous excises, headed by MASANIELLO— <i>Masanielsop</i>	1647
Oliver CROMWELL usurped the government of England, under the name of Protector— <i>Cromsli</i> . . .	1653
The island of JAMAICA in America taken by the English— <i>Jamaicaull</i>	1655
CROMWELLI MORS— <i>Crom-morsuk</i>	1658
GIBRALTAR taken (capta) by the English— <i>Gibrapzo</i>	1704

The Memorial Lines.

God-Bulnou, Inquisded, Charteel, *Tylíka*, *Cadeſtly*,
Mar-Luthlap, *Protalen*, *Smalcalloz*, *Tren-decat-alfu*,
Mas-Paraloid, *Un-Ploin*, *Sp-invukkk*, *Powdsyl*, *Masa-*
nielsop,
Cromsli, *Jamaicaull*, *Crom-morsuk*, capta *Gibrapzo*.

N. B. A thousand is to be added as above, where it is not expressed.

TABLE VII.

THE PATRIARCHS BEFORE AND AFTER THE FLOOD.

	An	Mun.	Age.
ADAM—Adniz	1	—	930
SETH—Setháty-nad	130	—	912
ENOS—Endil-nyl	235	—	905
CAINAN—Caitel-naz	325	—	910
MAHALALEEL—Mahalatoul-koul	395	—	895
JARED—Jarósy-naud	460	—	962
ENOCK—Enchséd-isu	622	—	365
METHUSELAH—Methuscép-naun	687	—	969
LAMECH—Lakoíf-poip	874	—	777
NOAH—Noachazús-nuz	1056	—	950
SHEM—Shembulk-aug	1558	—	600
ARPHAXAD—Arasleí-fik	1658	—	438
SALAH—Salasout-ott	1693	—	433
HEBER—Hebaped-óso	1722	—	464
PELEG—Pelapúp-etou	1757	—	239
REU—Reuapép-din	1787	—	239
SERUG—Serakán-diz	1819	—	230
NAHOR—Nahorakón-bok	1849	—	148
TERAH—Terakoík-dyl	1878	—	205
ABRAHAM—Abezyk-boil	2008	—	175
ISAAC—Isebyk-beíz	2108	—	180
JACOB—Jácobebaúk-bop	2168	—	147

The Memorial Lines.

Adniz, Setháty-nad, —

— Endil-nyl, Caitel-naz, Mahalatoul-koul,

Jarósy-naud, —

Enchséd-isu, Methuscép-naun, Lakoíf-poip, Noachazús-nuz,

Shembulk-aug, Arasleí-fik, Salasout-ott, Hebaped-óso,

Pelapúp-etou, Reuapép-din, Serakán-diz, Nahorakón-bok,

Terakoík-dyl, Abezyk-boil, Isebyk-beíz, Jácobebaúk-bop.

TABLE VIII.

THE PATRIARCHS, &c. ACCORDING TO THEIR YEARS BEFORE
CHRIST.

	Bef. Christ.
SETH— <i>Séthikoif</i>	born 3874
ENOS s.— <i>Enosipaun</i>	3769
CAINAN s.— <i>Caitspou</i>	3679
MAHALALEEL s.— <i>Mahalatsyn</i>	3609
JARED s.— <i>Jarilof</i>	3544
ENOCH s.— <i>Enchtike</i>	3382
METHUSELAH s.— <i>Methusitap</i>	3317
LAMECH s.— <i>Lamibiz</i>	3130
NOAH s.— <i>Noenok</i>	2948
SHEM s.— <i>Sheffs</i>	2446
ARPHAXAD s.— <i>Arphetos</i>	2346
SALAH s.— <i>Saldibb</i>	2311
HEBER s.— <i>Hébdeka</i>	2281
PELEG s.— <i>Pelégedop</i>	2247
REU s.— <i>Reúedap</i>	2217
SERUG s.— <i>Serúgdaku</i>	2185
NAHOR s.— <i>Nahrdall</i>	2155
TERAH s.— <i>Terebes</i>	2126
ABRAHAM s.— <i>Abrámanous</i>	1996
ISAAC s.— <i>Isakous</i>	1896
JACOB s.— <i>Jakip</i>	1837
LEVI s.— <i>Levapus</i>	1756

The reader is desired to take notice, that in this and the following tables, (where it could be done consistently with the intended brevity,) the relation which every person bore to him who immediately goes before, is signified by a single letter; s standing for son or sister, b for brother, n for nephew or niece, u for uncle, g for grandson, m for mother. So the s after Enos shows that he was the son of Seth, and so on.

The Memorial Lines.

Séthikoif, —

Enosipaun, Caitspou, Mahalatsyn, Jarilof, Enchtike,
 Methusitap, Lamibiz, Noenok, Sheffs, Arphetos, Saldibb,
 Hébdaka, Pelégedop, Reúedap, Serúgdaku, Nahrđall,
 Terebes, Abrámanous, Isakous, Jakip, Levapusque.

TABLE IX.

THE JUDGES OF ISRAEL, FROM THE DEATH OF MOSES TO
 SAMUEL.

	Ref. Christ.
Moses M-oritur (dies)—Mos-mola	1451
JOSHUA—Jóshfol	1445
OTHoniel—Othózu	1405
EHud—Ehutel	1325
DEBORah—Debodeil	1285
GIDEON—Gidol	1245
ABIMElech—Abmets	1236
THOLA—Thlett	1233
JAIR—Jaïdaz	1210
JEPHTHa—Jephtakk	1188
IBZan—Ibzáke	1182
ELON—Eloboil	1175
ABDON—Abdonaso	1164
ELI—Elíbup	1157
SAMUEL—Sambap	1117

The Memorial Lines.

Mos-mola, Jóshfol, Othózu, Ehutel, Debodeil, Gidol,
 Abmets,
 Thlett, Jaïdaz, Jephtakk, Ibzáke, Eloboil & Elíbup,
 Abdonaso, Sambap, —

N. B. One thousand is to be added. The dates affixed to the Judges before Abimelech are supposed to relate, not to the beginning of their presiding over Israel, but to the end of the *rest* given by them.—*Vide* the preface to *Petavii Rationarium*.

TABLE X.

KINGS OF ISRAEL AND JUDAH.

KINGS OF ALL ISRAEL.

	Bef. Christ.
SAUL—Saulaznu	1095
DAVID—Davazul	1055
SOLOMON s.—Solomázal	1015
The Defection of the Ten Tribes	975

KINGS OF JUDAH.

REHoboam s.—Rehonoil	975
ABIJAM s.—Abínup	957
ASA s.—Asaunl	955
JEHOSAPHAT s.—--hosaphanbo	914
JEHORAM s.—--horkein	889
AHAZIAH s.—Ahazikku	885
ATHALIAH m.—Athlikko	884
JEHOAASH g.—--hoaashkoik	878
AMAZIAH s.—Amazkin	839
UZZIAH or AZARIAH s.—Uz-Azarikby	810
JOTHAM s.—Jothpuk	758
AHAZ s.—Aházpod	742
HEZEKIAH s.—Hezepep	727
MANASSEH s.—Mansóut	693
AMON s.—Amónsot	643
JOSIAH s.—Josiasoz	640
JEHOIAKIM s.—--hoiakimsyn	609
JEHOIAKIN s.—--hoiakaug	600
ZEDEKIAH u.—Zedekilnei	598

KINGS OF ISRAEL.

JEROBOAM son of Nebat—Jerobnoil	975
N-adab s.—Nnuf	954
BAASHA—Baanut	953
ELAH s.—Elniz	930
ZIMRI, TIBNI, and OMRI—Zim-Tibnen	929

	Bef. Christ.
Omri alone— <i>Omnel</i>	925
AHAB s.— <i>Ahábnak</i>	918
AHAZIAH— <i>Ahazikoup</i>	897
JORAM b.— <i>Jorknau</i>	896
JEHU— <i>Jehukko</i>	884
JEHOAHAZ s.— <i>Jehoahaklau</i>	856
JEHOASH s.— <i>--hoashkin</i>	839
JEROBOAM II. s.— <i>Jerosekdu</i>	825
ZACHARIAH s.— <i>Zacharappt</i>	773
SHALLUM s. of Jabesh— <i>Shalluppe</i>	772
MENAHM s. of Gadi— <i>Menappe</i>	772
PEKARIAH s.— <i>Pekaipsa</i>	761
PEKAH— <i>Pekapun</i>	759
HOSEA s. of Elah— <i>Hospiz</i>	730

The Memorial Lines.

Saulaznu, Davazul, Solomázal, Reho-Jerobnoil.

Abínup, Asanul, --hosaphanbo, --horkein, Ahazikku,
Athlikko, --hoaashkoik, Amazkin, Uz-Azarikby,
Jothpuk & Aházpod, Hezepep, Mansóut & Amónsot,
Josiasoz, --hoiakimsyn, --hoiakaug, Zedekilnei.

Nnuf, Baanut, Elniz, Zim-Tibnen, Omnel, Ahábnak,
Ahazikoup, Jorknau, Jehukko, Jehoahaklau,
--hoashkin, Jerosekdu, Zacharappt, Shalluppe, Menappe,
Pekaipsa, Pekapun, Hospiz. —

N. B. 'The break before some of the words denotes that Je is wanting, as --hosaphanbo for Jehosaphanbo, --horkein for Jehorkein, &c.

TABLE XI.

THE PROPHETS.

	Bef. Christ.
JONAS prophesied against Nineveh— <i>Jonkze</i>	802
JOEL prophesied— <i>Joeig</i>	800

	Bef. Christ.
Amos prophesied against King Jeroboam— <i>Ampeip</i>	787
Hosea prophesied against Israel— <i>Hosephu</i>	785
Isaiah began to prophesy— <i>Ispauz</i>	760
NAHUM prophesied against Nineveh— <i>Náhupuk</i>	758
Micah prophesied against Judah and Jerusalem— <i>Micput</i>	753
JEREMIAH began to prophesy— <i>Jersta</i>	631
ZEPHANIAH prophesied— <i>Zephautz</i>	630
HABAKKUK prophesied— <i>Habasyn</i>	609
EZEKIEL in captivity had his first vision— <i>Ezeloul</i>	595
OBADIAH prophesied against the Edomites— <i>Obadilkoi</i>	587
DANIEL had his vision of the four empires— <i>Dull</i>	555
HAGGAI prophesied— <i>Haglez</i>	520
ZECHARIAH prophesied— <i>Zecharúdz</i>	520
MALACHI wrote his book, which was the end of vision and prophecy— <i>Malachinp</i>	397

The Memorial Lines.

Jonkze, Joeig, Ampeip, Hosephu, Ispauz, Náhupuk, Micput, Jersta, Zephautz, Habasyn, Ezeloul, Obadilkoi, Dull, Haglez, Zecharúdz, Malachinp. —

TABLE XII.

KINGS OF ASSYRIA AND BABYLON.

KINGS OF ASSYRIA AFTER THE DISSOLUTION OF THE ANCIENT ASSYRIAN EMPIRE UPON THE DEATH OF SARDANAPALUS.

	Bef. Christ.
ARBACES— <i>Arbapop</i>	747
SALMANESER s.— <i>Salmpek</i>	728
SENNACHERIB s.— <i>Sennachoibo</i>	714
ESARHADDON third s.— <i>Esarhadopzau</i>	706

KINGS OF BABYLON.

BELESIS— <i>Belespop</i>	747
NADIUS— <i>Nadpif</i>	734

Bef. Christ.

CHInzirus . . .	}	—Chi-Po-Jugpes	726
PORUS . . .			
JUGÆUS . . .			
Mardok Empadus—Empea			721
ARKianus—Arkpyu			709
BELIBUS—Belibupze			702
APRONadius—Apronaunu			699
REGIBILUS—Regibsnu			693
MESessimordacus—Messoud			692

After his death followed an *interregnum* of eight years, of which Esarhaddon, King of Assyria, taking the advantage, seized Babylon, and adding it to his former empire, thenceforth reigned over both for thirteen years.

KINGS OF ASSYRIA AND BABYLON JOINTLY, THE ROYAL SEAT SOMETIMES AT NINEVEH, AND SOMETIMES AT BABYLON.

Bef. Christ.

Esarhaddon, called in Ptolemy's Canon ASSAR-	
Addinus—Assarsky	680
SAOSduchinus s.—Saóssaup	667
CHYNiladanus—Chynsop	647

Chyniladanus having made himself despicable to his people, Nabopollasar, general of his army, set up for himself; and being a Babylonian by birth, made use of his interest there to seize that part of the Assyrian empire, and reigned king of Babylon twenty-one years. And in the fourteenth year of his reign, having made an affinity with Astyages, the eldest son of Cyaxares, by the marriage of his son Nebuchaduezzar with Amyitis, the daughter of Astyages, entered into a confederacy with him against the Assyrians, and thereon joining their forces together, they besieged Nineveh; and after having taken the place, and slain Saracus the king, (who was either the successor of Chyniladanus, or he himself under another name,) to gratify the Medes, they utterly destroyed that great and ancient city, and from that time Babylon became the sole metropolis of the Assyrian empire. Vide *Prideaux's Connexion*, Part I. Book 1.

KINGS OF BABYLON.

	Bef. Christ.
NABOPOLLASAR—Nabopol ^{sel}	625
NEBUCHADNEZZAR s.—Nebsys	606
EVILMERODOCH s.—Evillaub	561
NERIGLISSAR b. in law—Neriglun	559
*LABOROSOARCHOD s. } —Nabolul	555
NABONADIUS s. of Evilmerodoch }	
DARIUS the MEDE, <i>i.e.</i> Cyaxares, uncle of Cyrus, to whom Cyrus allowed the title of all his con- quests as long as he lived—Dar-Medlik	538
By his taking Babylon ended the BABYLONISH empire, after it had continued 209 years—Reg-Babylezou.	

The Memorial Lines.

ASSYRIA.

Arbapop & Salmpek, Sennachoibo, Esarhadopzau.

BABYLON.

Belespop, Nadpif, Chi-Po-Jugpes, Empea, Arkpyn,
Belibupze, Apronaunn, Regibsnî, Messoud,—Assarsky,
Saôssaup, Chynsop,—Nabopol^{sel}, Nebsys, Evillaub,
Neriglun, Nabolul, Dar-Medlik, Reg-Babylezou. ;

TABLE XIII.

KINGS OF EGYPT, MEDIA, AND PERSIA.

KINGS OF EGYPT.†

	Bef. Christ.
SABACON the Æthiopian—Sabacopdoi	727
SEVECHUS s.—Sevpan	719

* For the reason why *Laborosoarchod* is not named in Ptolemy's Canon, see *Prideaux's Connexion*, Part I. Book 2.

† Of the ancient Kings of Egypt, from Mizraim or Menes, we have little else but the names, or fabulous accounts.

	Bef. Christ.
TIRHAKAH, last of the Æthiopians— <i>Tirhapyt</i>	705
Confederacy of the 12 PRINCES— <i>Prin-bé-skei</i>	688
PSAMMITICHUS— <i>Psammitspy</i>	670
NECUS s.— <i>Necussas</i>	616
PSAMMIS s.— <i>Psammaug</i>	600
APRIES s.— <i>Aprunf</i>	594
AMASIS— <i>Amaslaun</i>	569
PSAMMINITUS s. who was conquered by Cambyses, son of Cyrus— <i>Psaminitlel</i>	525

KINGS OF MEDIA AFTER THE REVOLT OF THE MEDES FROM
SENNACHERIB.

DEJOCES— <i>Dejopzou</i>	709
PHRAORTES s.— <i>Phraslau</i>	656
CYAXARES s.— <i>Cyaxasif</i>	634
ASTYAGES s.— <i>Astuno</i>	594
*CYAXARES II.— <i>Cy-d-lun</i>	559

KINGS OF PERSIA.

CYRUS— <i>Cyruts</i>	536
CAMBYSES s.— <i>Cambylen</i>	529
†OROPASTES MAGUS	} —Oro-Mag-Dar- Hystalda } 521
DARIUS s. of HYSTAPES	
XERXES s. by <i>Atossa</i> , daughter of Cyrus— <i>Xerxoku</i>	485
ARTAXERXES LONGIMANUS third s.— <i>Longfauf</i>	464
XERXES II. s. slain by	} —Xerd-Sog-Dar- Nothodi } 423
SOGDIANUS bast. b. slain by	
OCHUS bastard b. commonly called DARIUS NOTHUS	

* Cyaxares succeeded Astyages in the civil government, and Cyrus, grandson of Astyages, by his daughter Mandane, in the military government.

† Herodotus calls him *Smerdis*; Ctesias, *Spendadates*; Æschylus, *Mardus*; and in Scripture he is called *Antaxerxes*.

Ref. Christ.

Arsaces eldest s. commonly called Artaxerxes	
MNemon—Mnoyf	404
OCHUS s.—Ochilk	358
ARSES youngest s.—Arstip	337
Darius CODOMANNUS, descended from Darius No-	
thus—Codomattu	335

The Memorial Lines.

EGYPT.

Sabacopdoi, Sevpan, Tirhapyt, Prin-bé-skei, Psammitspy,
Necussas, Psammaug, Aprunf, Amasláun, Psaminitlel.

MEDIA.

Dejopzou, Phraslau, Cyaxasif, Astuao, Cy-d-lun.

PERSIA.

Cambylen, Oro-Mag-Dar-Hystalda, Xerxoku, Long-
fauf,
Xerd-Sog-Dar-Nothodi, Mnoyf, Ochilk, Arstip, Codo-
mattu.

TABLE XIV.

THE DIFFERENT NAMES OF THE SAME PERSONS IN SCRIPTURE
AND IN PROFANE AUTHORS.

*ARBACES . . .	†Tiglath Pileser, 2 Kings xv. 29.
†BELESIS . . .	} BALADAN, Isa. xxxix. 1.
NABONASSAR . . .	
MARDOK EMPADUS	Merodach BALADAN, <i>ibid.</i>
ASSAR-ADDINUS . .	{ ESARHADDON, 2 Kings xix. 37.
§NABONADIUS . .	{ ASNAPPER, Ezra iv. 10.
CYAXARES . . .	BELSHAZZAR, Daniel v. 1 and 29.
SABAON . . .	DARIUS the M-edé, Daniel iii. 31.
	So, 2 Kings xvii. 4.

* Called also by Castor, *Ninus*. junior.

† Also *Thilgamus* and *Thilgath Pileser*.

‡ Called also by Nicolas Damascenus, *Nanibrus*.

§ Called also by Berosus, *Nabonnedus*; by Megasthenes, *Nabonnidochus*; by Herodotus, *Labyntus*; and by Josephus, *Nabonidelus*.

NECUS	Pharaoh NECHO, 2 <i>Chro.</i> xxxv. 20.
TARACHUS	TIRHAKAH, <i>Isa.</i> xxxvii. 9.
APRIES	Pharaoh HOPHRAH, <i>Jer.</i> xlv. 30.
DEJOCES	ARPHAXAD, <i>Judith</i> i. 1.
*ARTAXERXES	} AHASUERUS, <i>Esther</i> ii. 16.
LONGIMANUS	
SALMANESER	{ ENEMESSAR, <i>Tobit</i> i. 2. SHALMON, <i>Hosea</i> x. 14.
SENNACHERIB	
ASTYAGES	AHASUERUS, <i>Daniel</i> ix. 1.
SEVECHUS	SETHON, <i>Herodotus</i> 2.
SAOSDUCHINUS	†NABUCHODONOSOR, <i>Judith</i> i. 1.
CAMBYSES	AHASUERUS, <i>Ezra</i> iv. 6.
SMERDIS	ARTAXERXES, <i>Ezra</i> iv. 7.

The Memorial Lines.

Arb-Tig, Bel-Bala-Nab, Nabonad-Belsh, Dar-M-Cya,
 Sab-So,
 Dej-Arphax, Apr-Hoph, Empád-Balad, Ass-Esar-Asnap,
 Sen-Sarg, Salm-Ene-Shalm, Sev-Seth, Saós-Nabu,
 Smerd-Art,
 Tirh-Tara, Nech-Necus, Art-Long-Asty-Ahas, Cam-
 Ahasque.

TABLE XV.

KINGS OF EGYPT AND SYRIA, AFTER THE DEATH OF ALEX-
 ANDER THE GREAT.

KINGS OF EGYPT.	Bef. Christ.
Ptolemæus LAGUS or Soter—Lagtyo	304
Ptol. Philadelphus s.—Phadko or Phildeif	284
Ptol. Evergetes s.—Eudos	246
PTOL. PHILOPATOR s.—Ptol-Pheeb	221
PTOL. EPIPHANES s.—Ptol-Epiphezo	204
Ptol. Philometor s.—Phombeiz	180

* Archbishop Usher thinks that Darius Hystaspes was the K. Ahasuerus that married Esther; Scaliger, that Xerxes was.

† *Nabuchodonosor* was a name among the Babylonians, commonly given to their kings, as that of *Pharaoh* was among the Egyptians.

	Bef. Christ.
Ptol. PHYSCON b.— <i>Physcobfu</i>	145
Ptol. LATHYRUS s.— <i>Lathyradz</i>	120
ALEXANDER n.— <i>Alexanky</i>	80
Ptol. AULETES bastard s. of <i>Lathyrus</i> — <i>Aulaul</i>	65
CLEOPATRA d.— <i>Cleopatla</i>	51

KINGS OF SYRIA.

SELEUCUS NICANOR — <i>Sél-Nitad</i>	312
ANTIOCHUS SOTER s.— <i>Antí-Sodoin</i>	279
ANTIOCHUS THEOS s.— <i>A-Thedauz</i>	260
SELEUCUS CALLINICUS s.— <i>Sel-Caldfu</i>	245
SELEUCUS CERAUNUS s.— <i>Cerauneel</i>	225
ANTIOCHUS MAGNUS b.— <i>Ant-Magdee</i>	222
SELEUCUS PHILOPATOR s.— <i>Sel-Phaks</i>	186
ANTIOCHUS EPIPHANES b.— <i>An-Eboil</i>	175
ANTIOCHUS EUPATOR s.— <i>Ant-Eúpasso</i>	164
DEMETRIUS SOTER s. of <i>Seleucus Philopator</i> — <i>Dem-Sáse</i>	162
ALEXANDER BALA — <i>Al-Balbuz</i>	159
DEMETRIUS NICATOR son of <i>Demetrius Soter</i> — <i>D-Nicafu</i>	145
ANTIOCHUS SIDETES b.— <i>Sidétboz</i>	140
DEMETRIUS NICATOR — <i>D-Nicaty</i>	130
ZEBINA — <i>Zebbel</i>	125
ANTIOCHUS GRYPUS son of <i>Demetrius Nicator</i> — <i>Grypadi</i>	123
SELEUCUS s.— <i>Seleucous</i>	96
PHILIP b.— <i>Philipne</i>	92
TIGRANES King of Armenia— <i>Tigráncit</i>	83

The Memorial Lines.

EGYPT.

Lagtyo, *Phadko*, *Eudos*, *Ptol-Pheeb*, *Ptol-Epiphezo*,
Phombeiz,
Physcobfu, *Lathyradz*, *Alexanky*, *Aulaul*, *Cleopatla*.

SYRIA.

Sél-Nitad, *Antí-Sodoin*, *A-Thedauz*, *Sel-Caldfu*, *Cerauneel*,

Ant-Magdee, Sel-Phaks, An-Eboil, Ant-Eúpaso, Dem-Sásc,
 Al-Balbuzz, D-Nicafu, Sidétboz, D-Nicaty, Zebbel,
 Grypadi, Seleucous, Philipne, Tigráncit. —

TABLE XVI.

JEWISH HIGH PRIESTS, &c. AFTER THE RETURN FROM THE
 CAPTIVITY.

	Bef. Christ.
JESHUA son of Jozadack—Jeshúalis	536
JOIAKIM s.—Joiakokt	483
ELIASHIB s.—Elsholt	453
JOIADAH s.—Joiadoat	413
*JOHANAN s.—Johanánipt	373
JADdua—Jadutob	341
ONIAS PRIMUS s.—On-prímida	321
SIMON the J-ust s.—Sim-jig	300
ELEAZAR b.—Eleádna	291
MANASSEH son of Jaddua, and uncle of Simon the Just—Manásseps	276
†ONIAS S-ecundus son of Simon the Just—On-sduz	250
SIMON SECUNDUS s.—Sim-secdap	217
ONIAS T-ertius s.—On-tboul	195
JASON b.—Jasboil	175
MENELAUS b.—Menélape	172
On the death of Menelaus, Alcimus was made high priest by Antiochus Eupator. After him, Jonathan, brother of Judas, was made high priest by Alexander Bala.	
JUDAS MACCABÆUS (s. of Mattathias, descended from Asmonæus) captain of the Jews—Ju-Máccabass	166
JONATHAN b.—Jóuabauz	160
SIMON MACCABÆUS—Si-Macbot	143

* Called also Jonathan. *Nehemiah* x. 11.

† He being an infant at his father's death, Eleazar was made high priest.

	Bef. Christ.
HYRCANUS s.—Hircatu	135
K. Aristobulus s.—K-Arbys	106
Alexander JANNÆUS b.—Jannazu	105
ALEXANDRA w.—Alxándroik	78
(ARISTOBULUS SECUNDUS younger s. K.—Aristób-secaun)	69
HYRCANUS SECUNDUS elder b. H. P.—Hyrca-secundsî	63
ANTIGONUS younger son of Aristobulus K.—Antigonoz	40
HEROD son of Antipas K.—Herodîk	38
ARCHELAUS K.—Archelt	3

The Memorial Lines.

Jeshúalis, Joiakokt, Elsholt, Joiadoat, Johanánipt,
 Jadutob, On-prímida, Sim-jig, Eleádua, Manásseps,
 On-sduz, Sim-secdap, On-thoul, Jasboil, Menelápe,
 Ju-Máccabass, Jónabauz, Si-Macbot, Hyrcatu, K-Arbys,
 Jannazu, Alxándroik, Aristób-secaun, Hyrca-secundsî,
 Antigonoꝝ, Herodîk, Archelt. —



TABLE XVII.

FOUNDERS, &c. OF ANCIENT MONARCHIES.

	Bef. Christ.
NINUS founder of the Assyrian monarchy—Ninezlou	2059
SEMIramis wife of Ninus—Semanaul	1965
SARDANapalus in whom ended the Assyrian monarchy—Sardanpop or paup	747 or 767
ÆGIALeus, King of Sicyon—Ægialézkou	2089
INachus first King of Argos—Inakus	1856
The OGYGian flood, under Ogyges King of Attica—Ogygapaus	1766
PROMetheus, son of Japetus, brother of Atlas—Praskoi	1687
CECrops first King of Athens—Cecblus	1556
SISYPHUS first King of Corinth—Sisyphálzo	1504

	Bef. Christ.
TEUCER first King of Troy— <i>Teucbuzd</i>	1502
CADMUS first King of Thebes— <i>Cadmáfno</i>	1494
SATURN expelled Crete by his son Jupiter, settled in Italy— <i>Satátty</i>	1330
PERSEUS first King of Mycene— <i>Pérsatat</i>	1313
HERCULES, son of Jupiter by Alcmena— <i>Herbáoif</i>	1274
The ARGONAUTIC expedition— <i>Argóbdaup</i>	1267
OEDIPUS King of Thebes— <i>Oédibess</i>	1266
THESEUS son of Ægeus— <i>Thesbdif</i>	1234
*CODRUS the last King of Athens— <i>Codrázpa</i>	1071
CARANUS first King of Macedon— <i>Carankaf</i>	814
CANDAULES King of Lydia— <i>Candauptu</i>	735
CRÆSUS King of Lydia— <i>Cræsúse</i>	562
CYRUS, founder of the Persian empire— <i>Cyruts</i>	536
ALEXANDER, founder of the Grecian empire— <i>Alexita</i>	331
JULIUS CÆSAR, founder of the Roman empire— <i>Julos</i>	46

The Memorial Lines.

Ninezlou, Semanaut, Sardanpop, Ægialézkou,
Inakus, Ogygapaus, Praskoi, Cecblus, Sisyphálzo,
Teucbuzd, Cadmáfno, Satátty, Pérsatat, Herbdoif,
Argóbdaup, Oédibess, Thesbdif, Codrázpa, Carankaf,
Candauptu, Cræsúse, Cyruts, Alexita, Julos.

TABLE XVIII.

GRECIAN HISTORY.

	Bef. Christ.
The THEBAN war— <i>Thebadel</i>	1225
First MESSENIAN war— <i>Messpot</i>	743

-
- * After the death of Codrus the Athenians had perpetual Archons, the first of which was MEDON—*Medazoiz* . 1070
Then decennial Archons, the first of which was CHAROPS—*Charoppuo* 754
Then annual Archons, the first of which was CREON—*Creseiz* 680
——— *Medazoiz, Charoppuo, Creseiz.*

	Bef. Christ.
Second MESSenian war— <i>Messku</i>	685
Battle of MARATHON— <i>Marathónz</i>	490
Battle of SALAMIS— <i>Salamóky</i>	480
Battle of EURYMEDON— <i>Eurymedopz</i>	470
The PELOPONNESIAN war— <i>Pelofib</i>	431
Battle of LEUCTRA— <i>Leuctratpi</i>	373
Battle of MANTINEA— <i>Mantisi</i>	363
PHOCÆAN or sacred war— <i>Phocilp</i>	357
Battle of the River GRANICUS— <i>Granitif</i>	334
Battle at the ISSUS— <i>Issit</i>	333
Battle of ARBELA— <i>Arbtib</i>	331
ALEXANDER the Great succeeds Philip— <i>Alextis</i>	336
Philip ARIDÆUS— <i>Aritet</i>	323
Alexander ÆGUS— <i>Ægtas</i>	316

The Memorial Lines.

Thebadel & Messpot, *Messku*, *Marathónz*, *Salamóky*,
Eurymedopz, *Pelofib*, *Leuctratpi*, *Mantisi*, *Phocilp*,
Granitif, *Issit*, *Arbtib*, *Alextis*, *Aritet*, *Ægtas*.

N. B. After the death of Alexander there arose great confusion among his Generals about the succession, each seizing what he could for himself; till, by leaguings and making war against each other, they were, after some years, all destroyed except four. These were Cassander, Lysimachus, Ptolemy, and Seleucus, who divided the whole empire.

CASSANDER had MACEDON and GREECE.

LYSIMACHUS had THRACE and those parts of Asia situated upon the Hellespont and the Bosphorus.

PTOLEMY had Ægypt, LIBYA, A-rabia, PALEstine, and Cælo-SYRIA.

SELEUCUS all the rest of Asia, &c.

The Memorial Line.

Cáss-magre, Lys-thrachebos, Ptol-ælibapalsy, Seleuc-as.

TABLE XIX.

GRECIAN LAWGIVERS, PHILOSOPHERS, AND POETS.

	Bef. Christ.
LYCURGUS born— <i>Lycnes</i>	926
DRACO— <i>Drásdo</i>	624
SOLON died— <i>Solun</i>	559
PYTHAGORAS died aged 80— <i>Pytháglys</i>	506
EUCLID the geomet. flourished— <i>Euclozau</i>	406
SOCRATES died— <i>Socrinn</i>	399
XENOPHON died— <i>Xenóphilou</i>	359
PLATO died— <i>Platok</i>	348
DIODENES died aged 90— <i>Diotet</i>	323
ARISTOTLE died aged 63— <i>Aristéd</i>	322
EPICURUS died aged 72— <i>Epicudpa</i>	271
ARCHIMEDES slain— <i>Archidad</i>	212
LINUS and Orpheus— <i>Linadka</i>	1281
HOMER died— <i>Homnad</i>	912
ARCHILOCHUS— <i>Archilochuskau</i>	686
SAPPHO— <i>Sapphsyd</i>	602
ANACREON— <i>Anácloud</i>	592
ÆSCHYLUS born— <i>Æschlel</i>	525
PINDAR died aged 80— <i>Pindfóz</i>	440
SOPHOCLES born— <i>Sophoclozoi</i>	407
THEOCRITUS flourished— <i>Theócreku</i>	285
LYCOPHRON flourished— <i>Lycophrepz</i>	270

The Memorial Lines.

Lycnes, *Drásdo*, *Solun*, *Pytháglys*, *Euclozau*, *Socrinn*,
Xenóphilou, *Platok*, *Diotet*, *Aristéd*, *Epicudpa*,
Archidad, *Linadka*, *Homnad* & *Archilochuskau*,
Sapphsyd & *Anácloud*, *Æschlel*, *Pindfóz*, *Sophoclozoi*,
Theócreku, *Lycophrepz*. — —



TABLE XX.

ROMAN HISTORY.

The foundation of Rome was laid in the 3961st year of the Julian period—Rom-pinsa; *anno mundi* 3251—Rom-midub; in the year before Christ 753, or as some 752—Romput; upon the 22d day of APRIL—Apride; in the 4th year of the 6th Olympiad—fols.

The REGAL STATE under seven kings lasted 245 years—Stat-regdol.

	Bef. Christ.
ROMULUS—Romput	753
NUMA Pompilius—Numpaf	714
TULLUS HOSTILIUS—Hostilspy	670
ANCUS MARTIUS—Anesip	637
TARQUINIUS PRISCUS—Prisesaf	614
SERVIVS TULLIVS—Servups	576
TARQUINIUS SUPERBUS—Superlid	532

The Memorial Lines.

———— Stat-regdol,

Rom-pinsa, Rom-midub, Romput fols Apride, Numpaf, Hostilspy, Ancsip, Prisesaf, Servupsque Superlid.

TABLE XXI.

The CONSULAR STATE, from Brutus and Collatinus the first consuls, to the period when Julius Cæsar was made perpetual dictator, lasted 464 years—Stat-consularoso.

	Bef. Christ.
CONSULS first made—Consulzor	507
FIRST Dictator—Diconoi	497
Creation of the TRIBUNES—Tribfoud	492
Creation of the DECEMVIRI—Decemvoly	450

		Bef. Christ.
Creation of the MILITARY T-ribunes—Mil-tfoz . . .		440
INCENDIUM Urbis, or the burning of the city by the Gauls—Incendikk		388
War with the SAMNITES—Samnife		342
War with PYRRHUS King of Epirus—Pyrdoin . . .		279
First PUNIC war	} BELLUM—Bel-punesi- das-bok	{ 263 216 148
Second PUNIC war		
Third PUNIC war		
The end of the sedition of the GRACCHI—Grac- chade		122
The JUGURTHINE war—Jugubzou		109
War with the CIMBRI—Cimbat		113
The social or ITALIAN war—Italein		89
War begun with MITHRIDATES—Mithridatkou . .		89
DICTATORSHIP of SYLLA—Syl-dicteiz		80
CATILINE's conspiracy—Catilaud		62
First TRIUMVIRATE—Trun		59
Battle of PHARSALIA—Pharsop		47
BATTLE of PHILIPPI—Bat-philob		41
Battle of ACTIUM—Acta		31

The Memorial Lines.

—————Stat-consularoso,
 Consulzoi, Diconoi, Tribfoud, Decemvoly, Mil-tfoz,
 Incendikk, Samnife, Pyrdoin, Bel-punesi-das-bok,
 Gracchade, Jugubzou, Cimbat, Italein, Mithridatkou,
 Syl-dicteiz, Catilaud, Trun, Pharsop, Bat-philob, Acta.

TABLE XXII.

THE TWELVE CÆSARS.

		Bef. Christ.
I. JULIUS Cæsar—Julios		46
II. AUGUSTUS great n.—Augustel		25
		Anno Domini.
III. TIBERIUS step-s.—Tiberbu		15
IV. CALIGULA great n.—Caligulik		38

		Anno Domini.
V. CLAUDIUS un.—Claod	. . . . .	42
VI. NERO step-s.—Nerul	. . . . .	55
VII. GALBA.	} Galb-Othosou	69
VIII. OTHO		
IX. VITELLIVS	} Vit-Vespoiz	70
X. VESPASIAN		
XI. TITUS s.—Titpou	. . . . .	79
XII. DOMITIAN b.—Domitka	. . . . .	81

The Memorial Lines.

Julios, Augustel,—Tiberbu, Caligulik, Claod,
Nerul, Galb-Othosou, Vit-Vespoiz, Titpou, Domitka.

N.B. The reign of Julius Cæsar is here supposed to commence from the death of Pompey, which made way for his absolute power soon after; the reign of Augustus from the full establishment of his authority by the senate and people. Some reckon it as commencing from the death of Anthony; and others, yet sooner, from the death of Julius Cæsar.

TABLE XXIII.

THE ROMAN EMPERORS FROM NERVA TO JOVIAN.

		Anno Domini.
XIII. NERVA—Nervous	. . . . .	96
XIV. TRAJAN—Trank	. . . . .	98
XV. ADRIAN—Adribap	. . . . .	117
XVI. ANTONINUS PIUS—Antbip	. . . . .	137
XVII. ANTONINUS PHILOSOPHUS s.—Ant-phibsa	. . . . .	161
XVIII. COMMODUS s.—Commódbeiz	. . . . .	180
XIX. PERTINAX	} Pert-Juli-Sant	192
XX. DIDIVS JULIANVS		
XXI. SEPTIMIUS S-EVERVS		
XXII. CARACALLA & GETA ss.—Car-Gdab	. . . . .	211
XXIII. MACRINVS & DIADUMENVS	} Mac-D-Re- }	217
XXIV. HELIOGABALVS		
XXV. ALEXANDER S-EVERVS—Al-Sédd	. . . . .	222

	Anno Domini.
XXVI. M-aximinus & M-aximus—M-Metu	235
XXVII. Pupienus and B-albinus—Pu-Bdik	238
XXVIII. GORDIAN—Gordin	239
XXIX. PHILIP—Pheff	244
XXX. DECIUS—Decidon	249
XXXI.* GALLUS & Volusian—Gal-Vódla	251
XXXII. VALERIAN—Valérelí	253
XXXIII. GALLIENUS—Galndanz	260
XXXIV.† FLAVIUS CLAUDIUS—Clesk	268
XXXV. AURELIAN—Aurepɜ	270
XXXVI. TACITUS—Tacidoil	275
XXXVII. PROBUS—Probdois	276
XXXVIII. CARUS and his sons C-arinus and N-umerian—Car-C-Nudke	282
XXXIX. DIOCLESIAN & MAXIMIAN—Di-Max- deif	284
XL. CONSTANTIUS CHLORUS & GALERIUS— Chlo-Galtyt	303
XLI.‡ CONSTANTINE the Great—Constys	306
XLII. FILII CONSTANTINI, the three sons of Constantine, viz. Constantine, Con- stantius, & Constans—Fil-Constip	337
XLIII. JULIAN, nephew to Constantine the Great—Julisa	361
XLIV. JOVIAN—Jovtauf	364

* GALLUS. Between Gallus and Valerian, some writers rank Æmilian among the number of emperors; but because he was never established in the empire, nor his title generally acknowledged, others more justly place him only among the usurpers.

† FLAVIUS CLAUDIUS. Upon the death of Claudius, Aurelian was unanimously chosen by the army: and at the same time Quintillus, brother to Claudius, was proclaimed emperor in Italy, and his election allowed by the senate; but finding himself unable to support his cause against Aurelian, he despatched himself, by causing his veins to be opened, after a short reign only of seventeen days, before he was rightly settled in his empire: for which reason he is here omitted.

‡ CONSTANTINE was saluted Emperor of the West upon the death of his father Constantius Chlorus; but was not sole monarch till the defeat and death of LICINIUS, An. Dom. 323—Licinitet. He removed the imperial seat to BYZANTIUM in the year 330—Byzantiz.

The Memorial Lines.

Nervous, Trank, Adribap, Antbip, Ant-phibsa, Com-
módbreiz,
Pert-Juli-Sant, Car-Gdab, Mac-D-Hedap-k, Al-Sédd,
M-Metu, Pu-Bdik,
Gordin, Pheff, Decidon, Gal-Vódla, Valérelí, Galndauz,
Clesk, Aurepz, Tacidoil, Probdois, Car-C-Nudke, Di-
Maxdeif,
Chlo-Galtyt, Constys, Fil-Constip, Julisa, Jovtauf.

TABLE XXIV.

THE DIVISION OF THE EMPIRE.

EASTERN.		WESTERN.	
	A. D.		A. D.
VALens—Valiso . . .	364	VALENTINIAN—Valti- nitauf	364
THEodosius MAGNUS—		GRATIAN—Gratoil . .	375
The-Magtoin . . .	379	VALENTINIAN the S-e- cond—Val-sikt . .	383
ARCADIUS—Arctoul . .	395	HONORIUS—Honotni .	393
THEodosius JUNIOR—		VALENTINIAN the T-hird —Va-tódo	424
Theo-Júnozei . . .	408	MAXIMUS AVITUS— Max-Aviful	455
MARCIAN—Marcolz . .	450	MAJORIAN—Majolp .	457
LEO—Léoloi	457	* * * * *	
ZENO—Zenofpo . . .	474	AUGUSTULUS, in whom ended the western empire—Augustfoil	475
ANASTASIUS—Ana- stafua	491	The restoration of the western empire by CHARLEMAGNE— Charlmeig	800
JUSTIN—Justlak . . .	518	* * * * *	
JUSTINIAN—Justinilep	527	OTHO MAGNUS—Oth- Magnis	936
* * * * *			
PHOCAS—Phocauze . .	602		
* * * * *			
LEO Isauricus—Le- Ispap	717		
* * * * *			
IRENE—Irénpoup . . .	797		
BASILIIUS MACEDO—			
Bas-Macekaup . . .	867		

EASTERN.	A. D.	WESTERN.	A. D.
* * * * *		* * * * *	
LEO Philosophus—		HENRICUS QUARTUS	
—Leo-Pheiks . . .	886	—Hen-quarbzup . . .	1057
* * * * *		* * * * *	
ALEXIUS C-omnenus		FREDERICK ÆNOBARBUS	
—Al-Cazka . . .	1081	—Ænbale . . .	1152
* * * * *		* * * * *	
MICHAEL PALÆOLOGUS		FREDERICUS SECUNDUS	
—Micha-Paladsa . . .	1261	—Frebdap . . .	1217
* * * * *		● * * * *	

CONSTANTINOPLE taken in the reign of Constantine Palæologus the last Emperor of the East—
Constantin^{us} *li* (see page 11) 1453

The Memorial Lines.

EASTERN EMPERORS.

Valiso, The-Magtoin, Arctoul, Theo-Júnozei, Marcolz,
Léoloi, Zenoffo, Anastafna, ———
Justlak, Justinilep, Phocauze, Le-Ispap, Irénpoup,
Bas-Macekaup, Leo-Pheiks, Al-Cazka, Micha-Paladsa.

WESTERN EMPERORS.

Valtinitauf, Gratoil, Val-sikt, Honotni, Va-tódo,
Max-Aviful, Majolp, ——— Augustfoil, ———
Charlmeig, Oth-Magnis, Hen-quarbzup, Ænbale, Frebdap.

It was not agreeable with the author's design to give a *complete* table of all the Eastern and Western Emperors. The succession was carried down to the sixth century; and after that, only a few are added of such as were most remarkable: to which it may not be improper to subjoin those persons who were famous for wasting and ravaging the Roman Empire.

Anno Domini.

ALARIC, King of the Goths, besieges, takes, and
plunders Rome—Alrobz 410
ATTILA, King of the Huns, called the Scourge of
God, ravages Italy—Attifla 451

Anno Domini.

GENSeric the Vandal sacks Rome—Gensful . .	455
ODOacer, King of the Heruli, makes himself master of Italy, and assumes the name of King—Odops	476
THEODoric, King of the Ostrogoths, drives Odoacer from Rome, and kills him with his own sword— Theódoni	493
TOTilas the Ostrogoth takes Rome—Totlop . .	547

The Memorial Line.

Alrobz, Attifla, Gensful, Odops, Theódoni, Totlop.

TABLE XXV.

EASTERN GENERAL COUNCILS.

(See page 5.)

Place.	Pope.	Emperor.	Heretics.	Year.
1. NICE	SILvester	Constantine	ARIUS	325
2. Constan- tinople	DAMASUS	THEodosi- us Magnus	MACEDO- nians	381
3. EPHesus	CElestine	THEOD. jun.	NEstorians	431
4. CHAL- cedon	LEO	MARCIAN	EUTYCHES & DIO- scorus	451
5. Constan- tinople	VIGILIUS	JUSTINIAN	O-rigenists	553
6. Constan- tinople	AGATHO	Constantine Pogonatus	MONO- thelites	680

The Memorial Lines.

Nic-Sil-Con-Aritel, Co-Da-Thé-Mateib, Eph-Ce-The-
Nésfib,
Chál-Le-Mar-Eudíola, Co-Vi-Júst-Olut, C-Ag-Co-Po-
Monseiz.

WESTERN GENERAL COUNCILS.

Anno Domini.

1. LATERAN	—Latbéd-in-oil-dal-lap . . .	1122
2. LATERAN		1139
3. LATERAN		1175
4. LATERAN		1215
5. LATERAN		1517

	Anno Domini.
1. LYONS } —Lyodúl-doif	{ 1255
2. LYONS }	{ 1274
VIENNA—Vítáa	1311
CONSTANCE—Constfáf	1414
BASIL—Basfia	1431
FLORENCE—Florénfin	1439
TRENT—Trenalol	1545

The Memorial Lines.

Latbéd-in-oil-dal-lap, Lyodúl-doif, Vítáa, Constfáf,
Basfia, Florénfin, Trenalol.——

N. B. A thousand is to be added. Note also, that the second and third Lateran being in the same century with the first, *b* is left out, as *bed-in-oil*, instead of *bed-bin-boil*; the syllables in order answering to the order of the councils.

COUNCILS NOT ŒCUMENICAL.

	A. D.	A. D.
ANCYRA } —Anc- }	315	ANTIOCH—Antob . 341
NEOCÆSAREA } Neotal }		SARDICA—Sardifp 347
GANGRA—Gangtoz .	340	LAODICEA—Laódisa 361

The Memorial Line.

Anc-Neotal, Gangtoz, Antob, Laódisa, Sardifp.

TABLE XXVI.

FATHERS, HERETICS, &c.

	Flourished A. D.
HERMAS PASTOR—Herm-Pastaul	65
CLEMENS ROMANUS—Clé-Romaul	65
IGNATIUS—Ignabza	101
POLYCARP—Polycarázei	108
JUSTIN MARTYR—Jus-Marboz	140
IRENÆUS—Irasp	167
THEOPHILUS ANTIOCHENUS—Thask	168
ATHENAGORAS—Athnapp	177
CLEMENS ALEXANDRINUS—Cl-éxane	192
TERTULLIAN—Tertand	192

	Flourished A. D.
MINUTIUS Felix—Min-Fdez	220
ORIGEN—Oretz	230
GREGORY THAUMATURGUS—Thaumelf	254
CYPRIAN martyred—Cyprelk	258
LACTANTIUS—Lactantyt	303
ARNOBIOUS—Arntyt	303
EUSEBIUS PAMPHILIUS—Eu-Pamtal	315
ATHANASIUS—Athates	326
CYRIL of Jerusalem—Cyr-Jilz	350
HILARY—Hilarilf	354
EPIPHANIUS—Epiphánisk	368
EPHRAIM SYRUS—Eph-Syrtoiz	370
BASIL MAGNUS—Bas-Magtoiz	370
GREGORY NAZIANZEN—Grego-Naztoiz	370
MACARIUS—Macaript	373
AMBROSE—Ambrotpo	374
JEROME—Jeromtoik	378
EVAGRIUS—Evagteiz	380
RUFINUS—Rufinz	390
AUSTIN or Augustin—Austins	396
CHRYSOSTOM—Chrysotouk	398
CYRIL of ALEXANDRIA—Cyr-Alexébe	412

PHILO JUDÆUS—Phil-Jufy	40
JOSEPHUS—Joséphaup	67
AQUILA—Aquibek	128
THEODOTIUS—Theodótapu	175
SYMMACHUS—Synchézb	201

HERETICS.

CERINTHUS—Cerintheiz	80
PAPIAS—Papaaz	110
BASILIDES—Basilibbe	112
VALENTINIAN—Valentady	120
MARCIAN—Marchoz	140
HERMOGENES—Hermogapy	170
MONTANUS—Montápe	172
NOVATIAN—Novdua	251
PAULUS SAMOSATANUS—Pau-Samdauz	260
MANES—Manépp	277

	Flourished A.D
ARIUS-- Aritel (see page 6)	325
DONATUS—Dónaten	329
EUNOMIUS—Eunomitausz	360
PRISCILLIAN—Priscitpa	371
PELAGIUS—Pelagiózu	405

WRITERS AGAINST CHRISTIANITY.

CELSUS—Celsbuz	159
HIEROCLES—Hierocléze	202
PORPHYRY—Porphepy	270
ZOSIMUS—Zosfel	425

The Memorial Lines.

Herm-Pastaul, Clé-Romaul, Ignabza, Polycarázei,
 Jus-Marboz, Irasp, Thask, Athnapp, Cl-éxane, Tertand,
 Min-Fdez, Oretz, Thaumelf, Cyprelk, Lactantyt & Arntyt,
 Eu-Pamtal, Athates, Cyr-Jilz, Hilarilf, Epiphánisk,
 Eph-Syr-Bas-Gregotoiz, Macaript, Ambrotpo, Jeromtoik,
 Evagteiz, Rufinz, Austins, Chrysotouk, Cyr-Alexóbe.
 Phil-Jufy, Joséphaup, Aquibek, Theodótapu, Symchézb.
 Cerintheiz, Papaaz, Basilibbe, Valentady, Marboz,
 Hermogapy, Montápe, Pau-Samdausz, Novdua, Manepp,
 Dónaten, Eunomitausz, Priscitpa, Pelagiózu.
 Celsbuz, Hierocléze, ——— Porphepy, Zosfel.

TABLE XXVII.

POPES, AUTHORS, FAMOUS MEN, &c.	An. Domí.
LIBERIUS—Libertle	352
ZOSIMUS—Zosoap	417
LEO M-agnus—Leo-Moff	444
GELASIUS—Gelásone	492
JOAN—Joankof	844
URBAN VI. } Antipopes—Urb-s-Cle p-atoip .	1377
CLEMENT VII. }	
LEO X.—L-az-blat	1513
GREGORY XIII.—Grego-bi-búpe	1572
SEXTUS QUINTUS—S-Quinaleil	1585
CLEMENT VIII.—Cle-k-aloud	1592

	Bef. Christ.
SANCHONIATHON—Sanchabout	1193
HERODOTUS—Herodofus	456
MANETHO—Manetheky	280
BEROSUS—Berodson	269
HIPPARCHUS—Hipparbse	162
	Anno Domini
ONKELOS—Onkelkoi	87
TACITUS—Tacitázei	108
AULUS GELLIIUS—Gelaad	112
PAUSANIAS—Pausato	134
GALEN—Galbot	143
DIOGENES LAERTIUS—Laertbop	147
PRUDENTIUS—Prudinp	397
EUTROPIUS—Eutropfek	428
MERLIN—Merlopoi	477
HESYCHIUS—Heschfoun	499
PROCOPIUS—Procolip	537
AGATHIAS—Agathlaup	567
GILDAS—Gildusp	567
BEDE—Bedsaus	666
ZONARAS—Zonarabbak	1118
GRATIAN—Gratabla	1151
BALSAMON—Balaboub	1191
PETRUS LOMBARDUS—Lombalk	1158
THOMAS AQUINAS—Thom-Aquadsí	1263
PETRARCH—Petrattu	1335
PTOL. GEOGRAPH.—Ptol-Gëografz	140
COPERNICUS—Copérnicafoit	1473
TYCHO BRAHE—Tychblos	1546
GALILÆO—Galilasfe	1642
ERASMUS obit—Érasmutz	1536
ROBERT STEPHENS obit—Ro-Stlun	1559
TURNEBUS—Turnlaul	1565
HENRY STEPHENS obit—Hen-Stelsi	1563
THUANUS HISTORICUS—Thuansap	1617

The Memorial Lines.

Libertle, Zosoap, Leo-Moff', Gelásone, Joankof,
 Urb-s-Cle-p-atoip, L-az-blat, S-Quinaleil, Cle-k-aloud,
 Grego-bi-búpe.
 Sanchabout, Herodofus, Manetheky, Hipparbse, Berodsou.

Onkelkoi, Gelaad, Tacitázei, Pausato, Galbot,
 Laertbop, Prudinp, Eutropfék, Merlopoi, Heschfoun,
 Procolip, Agathlaup, Gildusp, Bedsaus, Zonarabbak,
 Gratabla, Balaboub, Lombalk, Thom-Aquadsí, Petrattu,
 Ptol-Gëografz, Tychblos, Copérnicafóit, Galilasfe,
 Erasmuts, Ro-Stlun, Turnlaut, Hen-Stelsi, Thuansap.

The time when any Author or famous Man flourished may also be known in general, as follows:

VITRUVIUS in the time of . . .	JULIUS Cæsar.
Dionysius HALICARNASSENSIS, under	AUGUSTUS.
STRABO	TIBERIUS.
SILIUS ITALICUS	NERO.
Quintus CURTIUS	VESPAſIAN.
PLUTARCH }	
APPIAN . }	TRAJAN.
ARRIAN	ANTONINUS P-ius.
ULPIAN	SEVERUS.
PROSPER }	
OROSIUS }	THEODOSIUS junior.
Z-OSIMUS }	
JORNANDES	JUSTINIAN.

The Memorial Lines.

Vitruv-Jul, Halic-Aug, Strab-Tib, Sil-Ital-Nero, Curt-
 Vesp,
 Plut-Appi-Tra, Arri-Ant-P, Ulp-Sev, Pros-Oró-Z-
 Theo, Jorn-Just.

TABLE XXVIII.

THE FOUNDERS OF THE STATES OF EUROPE.

		Anno Domini.
The first	Bishop of Rome . St. Peter—Pest . . .	43
	Pope Hyginus—Hygalo . . .	154
	Imperii ORIENTIS . GALERIUS—Ori-Galtyt . . .	303
	Emperor of CON- } ARCADIUS—Const-Arc- }	395
	stantinople . . } toul }	
	TURKISH Emperor { OTTOMAN—Turk-Ot- }	1295
	Emperor of the } tomadnoi }	
	ROMANS . . . } JULIUS Cæsar [before }	46
	Christ]—Rom-Jufs }	

Anno Domini.

The first	King of ITALY in the Empire . . }	Odoacer—Ital-Odops . .	476
	Emperor of GER-many . . . }	CHARLEMAGNE — Ger-Charlmeig . . . }	800
	King of FRANCE }	PHARAMOND—Fran-Pharamódy . . . }	420
	King of SPAIN .	ATHAULPHUS—Sp Athfaz	410
	King of PORTUGAL	ALPHONSUS—Port-Alabin	1139
	King of SCOTLAND }	FERGUS [before Christ] —Scot-Fergtid . . }	332
	King of ENGLAND	Egbert—Engkek . .	828
	King of POLAND .	BOLESLAUS—Pol-Bolath	1004
	King of DENMARK	OLAUS—Den-Olakzou . .	805
	King of SWEDEN .	B-ero—Swe-Bhib . .	831

The Memorial Lines.

Peft, Hygalo, Ori-Galtyt, Const-Arctoul, Turk-Otomadnau . .

Rom-Jufs, Ital-Odops, Ger-Charlmeig, Fran-Pharamódy, Sp-Athfaz, Port-Alabin, Scot-Fergtid, Pol-Bolath, Engkek, Den-Olakzou, Swe-Bhib.— —

TABLE XXIX.

THE TIMES OF THE WRITING OF THE CANONICAL BOOKS OF THE NEW TESTAMENT.

	An. Dom.		An. Dom.
1 THESSAL. } —Thes-	52	Titus and } —Ti-	65
2 THESSAL. } le-t	53	1 TIMOTHY } Timsu . .	65
1 PETER—Pelf . . .	54	2 PETER } —Sec-Pe	67
GALATIANS . . } —Gá-	57	2 TIMOTHY } Timaup . .	67
1 & 2 CORINTH. } Co-	57	JUDE—Judpa	71
R-omans . . } Rup	57	REVELATIONS—Revnau	96
PHILIPPIANS } —Phi-		JOHN, GOSPEL & EPISTLES	
COLOSSIANS } Col-		—Jonp	97
E-PHESIANS } E-Ph-	62	MATTHEW—MóborMatfa	41
PHILEMON . . } Jase	62	MARK—Marot	43
JAMES	63	LUKE—Laub	61
HEBREWS—Hebsi . .	63	ACTS—Acst	63

The Memorial Lines.

Thes-le-t, Pelf, Gá-Co-Rup, Phi-Col-E-Ph-Jase, Hebsi,
 Ti-Timsu,
 Sec-Pe-Timaup, Judpa, Revnau, Jonp, Mób, Marot,
 Laub, Acst.

TABLE XXX.

THE PROVINCIAL AND LEGATINE CONSTITUTIONS, ACCORDING
 TO THE ORDER IN WHICH THEY WERE MADE.

	Constitutiones Editæ A.D.
STEPHANI—Stephede	1222
RICARDI—Ricardiz	1230
EDMUNDI—Edmundis	1236
OTHONIS Card. Legati—Othdip	1237
BONIFACII—Bonesa	1261
OTHOBONI Card. Legati—Othobdauk	1268
J. PECCHAM apud READING—Pec-Readdoin	1279
Ejusdem, apud LAMBETH—Pec-Lambeka	1281
R. WINCHELSEY—Winchtyl	1305
WALTER—Walted	1322
SIMON MEPHAM—Si-Mephtek	1328
J. STRATFORD—Stratfotod	1342
S. ISLEPE—Isleptaud	1362
S. LANGHAM—Langhisp	1367
S. SUDBURY—Sudbutoik	1378
T. ARUNDEL—Arunfyk	1408
H. CHICHLEY—Chichfal	1415

The Memorial Lines.

Stephede, Ricardiz, Edmundis, Othdip, Othobdauk,
 Bonesa, Pec-Readdoin, Winchtyl, Pec-Lambeka, Walted,
 Si-Mephtek, Stratfotod, Isleptaud, Chichfal, Arunfyk,
 Sudbutoik, & Langhisp. —

GEOGRAPHICA.

SECTION III.

THE APPLICATION OF THIS ART TO GEOGRAPHY.

IN the first place are laid down the general divisions of Europe, Asia, Africa, and America; then the particular divisions of the several states of Europe, into their respective governments or provinces. For every division there is one *technical* line, composed of the first syllable (or sometimes only of the first letters) of the parts or places into which it is subdivided; which syllables or letters are distinguished from the rest, in the tables, by small capitals, or an hyphen following.

It is further to be observed, that the beginning, middle, and ending of the line, answer, in order, to the *northern*, *middle*, and *southern* divisions of the kingdoms or countries; so that not only the places themselves, but, in some measure, their situation with respect to each other, may be remembered at the same time. Thus, in the *memorial line* for France, as it was before the Revolution, Fra=
P Nor-I-Cham; Bret-O-BouL; Guí-La-DaP.

P Nor-I-Cham denotes the four *northern* governments, viz. P-icardy, NORMandy, I-sle of France, and CHAM-pagne.

Bret-O-BouL denotes the four *middle* governments, viz. BREtagne, O-rleanois, BOURgogne, and L-ionnois.

Guí-La-DaP denotes the four *southern* governments viz. GUIenne with Gascony, LANGuedoc, DAuphiny, and P rovence.

It will be yet some further help to remember the situation of places, to observe, that in the several divisions I begin at the *west*, and go the *eastward*, as far as the limits of the country will allow, in a strait line, unless where the irregularity of the position makes this method inconvenient or impracticable; where that is the case, the reader will supply the defect by his own observation, and by comparing with proper maps.

Observe further, that where the syllables are connected with an hyphen, the countries denoted by them are contiguous from west to east; thus,

Nor-I-Cham shows that the Isle of France joins to Normandy on the east, and Champagne to the Isle of France on the east. Where the syllables or letters denoting two or more countries are joined together without an hyphen, there the countries are contiguous from north to south. Thus, Guí-La-Da P shows that Languedoc joins to Guienne on the east, Dauphiny and Provence to Languedoc on the east; and also that Provence is contiguous to and south of Dauphiny. Such syllables as have an hyphen preceding, but are not by it immediately joined to the foregoing syllable, signify that the countries denoted by them lie eastward, but are not contiguous. Thus, Sp -It -Turk shows that Italy is east of Spain, and Turkey east of Italy, but not contiguous.

When the reader is become well acquainted with the *general divisions*, he may then go on to charge his memory with the chief cities and most remarkable places of every country, their longitude and latitude, the correspondence of ancient and present geography, the geography of the Old and New Testament, the proportions of the states of Europe to Great Britain, the situation of the most noted islands, with other instructive and entertaining particulars in geography; all which he will find himself able to remember with greater ease than he could possibly have supposed before he became acquainted with the *memorial lines* contrived for that purpose.

TABLE I.

THE GENERAL DIVISIONS OF EUROPE, ASIA, AFRICA, AND AMERICA.

I. EUROPE is divided into,

1. *Northern*—containing Norway, Sweden, Russia, Denmark.

2. *Middle*—comprising the Netherlands, Germany, Poland, Little Tartary, France, Switzerland, Hungary, Transylvania, Moldavia, Walachia.

3. *Southern*—consisting of Spain with Portugal, Italy, Turkey.

The Memorial Line.

EUR=No-S-Ru D; Né-Ge-Po-LT, Fran-Switz, Hun-Tran-Mo-Wa; Sp-It-Turk.

II. ASIA is divided into,

1. *Northern*—containing Great Tartary, Georgia.

2. *Middle*—including Turkey in Asia, Persia, Empire of the Mogul, China.

3. *Southern*—comprehending Arabia, East Indies.

The Memorial Line.

AS=Ta-Geo; Tur-Pé-Mo-Chin; Arab-Ind. —

III. AFRICA is divided into,

1. *Northern*—containing Barbary, Biledulgerid, Egypt.

2. *Middle*—subdivided into Zaara, Negroland, Guinea, Nubia.

3. *Southern*—consisting of Congo, Abyssinia, coast of Abex, coast of Cafraria, Monomotapa, Zanguebar, coast of Ajan.

The Memorial Line.

AF=BáBil-E; ZáNeGui-N; Con-Abyss-Abex, Caf-Mono-Zangu-Aj.

IV. AMERICA is divided into,

1. *N-orthern*--containing New WALES, New BRITAIN, LOUISIANA, CANADA, MEXICO, FLORIDA, CAROLINA, VIRGINIA, M-aryland, P-ennsylvania, NewYORK, NewJ-ersey, New ENGLAND, lying from south-west to north-east.

2. *S-outhern*--including Terra FIRMA, PERU, country of the AMAZONS, BRAZIL, CHILI, PARAGUAY, Terra MAGellanica.

The Memorial Lines.

N-AM = Wal-Brit, Lóuis-Can, Mex-Flor, Cár-Vi-M,
P-YorJ Eng.

—S-AM = Firm, Per-Amáz Bra, Chi-Par, Mag.

TABLE II.

THE PARTICULAR DIVISIONS OF NORTHERN EUROPE.

I. NORWAY is divided into five parts or governments, viz.

WARDhuys (including F-inmark and Norwegian LAP-land), DRONtheim, BERGEN, ANSlo.

II. SWEDEN was divided into four general parts, viz.
Swedish LAPland (with B-othnia intermingled), SWE-
den P-roper, FINland (lately seized by Russia), and
GOTHland.

III. DENMARK contains

The peninsula of JUTland, ZEaland, and the lesser isles.

IV. RUSSIA contains many provinces, the most con-
siderable of which are,

Northern—LAPland, DWina or Archangel.

Middle—FINland, ESThonia, LIVONIA, INGria, NOV-
gorod. MOSCOW.

Western—LITHuania, POLotsk, MOhilev, UKRAINE,
BELgorod.

Southern—BUDziak Tartary, CRIM Tartary or Taurida,
VORonez, DON K-ozacks.

The Memorial Lines for Northern Europe.

NOR=Ward (F-Lap), DroBerAns. SWED=Lá (B),
SweP-Fin Goth.

DEN=Jut-Zea. —

RUSS=Lap-Dwi; FinEst Liv, Ing-Nov-Mosc; Lith-
Pol-Mo-Ukr-Bel; Bud-Crim-Vor-DonK.

TABLE III.

THE PARTICULAR DIVISIONS OF MIDDLE EUROPE.

I. The NETHERLANDS, or Low Countries, heretofore were generally distinguished into the United or Dutch Netherlands lying to the north, frequently called Holland, and the former Spanish Netherlands to the south, often called Flanders, from the most remarkable province in each.

The United Netherlands, now incorporated with France, formerly were divided into seven provinces, viz. FRIESland, Groningen, OverysseL, H-olland, U-trecht, GUelderland with Zutphen, Z-ealand.

The Spanish Netherlands, now swallowed up by France, were usually divided into these ten provinces, viz. FLANDers, B-rabant, (MARquisate of the empire within Brabant, Seignory of MALines within Brabant,) part of G-uelderland, LIMburg, ARTois, HAINault, NAMur, LUXemburg.

The Memorial Line.

HOLL=Fries-GrOV, H-U-Gue-Zu Z; Fla-B (Mar-Ma), GLim Art-Hai Na-Luxem.

II. GERMANY was divided into nine circles:

Three *northern*—circle of Westphalia, circle of *lower* Saxony, circle of *upper* Saxony.

Three *middle*—circle of *lower* RHINE, circle of *upper* Rhine, circle of FRANconia.

Three *southern*—circle of SUabia, circle of BAVaria, circle of AUSTria.

To which may be added, the kingdom of **BOHEMIA**, distinguished into four general parts, viz. **LUSATIA**, **SILESIA**, **Bohemia P-roper**, **MORAVIA**.

The Memorial Lines.

GERM=**We-Sal-up**; **Rhil-u-Fran**; **Sua-Bav-Aus**.

BOHE=**Lusa-Si-BoP-Mor**.

III. POLAND was divided into two general parts; the duchy of **Lithuania**, and the kingdom of **Poland**, properly so called.

Lithuania, consisting of the duchy of **Courland**, **Samogitia**, **Lithuania Proper**.

The kingdom of **Poland** contained **Prussia**, **Polachia**, **Mazovia**, **Poland magna**, **Poland parva**, **Little Russia**, **Volhinia**, **Podolia**.

The Memorial Line.

POL=**CouSa-Lith**, **Pru-Polach**, **Maz**, **Polma-pa**, **Rus-VolhiPodol**.

IV. FRANCE was divided into twelve governments, now, including the conquered countries, into about 120 departments:

Four *northern*—**P-icardy**, **Normandy**, **I-sle of France**, **Champagne**.

Four *middle*—**Bretagne**, **O-rleannois**, **Bourgogne**, **L-ionnois**.

Four *southern*—**Guienne** with **Gascony**, **Languedoc**, **Dauphiny**, **P-rovence**.

To which may be added, the other countries comprehended within the compass of Old Gaul, viz.

Lorraine, east of *Champagne*.

Savoy, east of **Bourgogne**, or *Burgundy*, and *Dauphiny*.

Switzerland, east of **Franché C-ompté**.

Franché Compté, east of *B-urgundy*.

The Memorial Lines.

FRA=**P Nor-I-Cham**; **Brét-O-BouL**; **Guí-La-DaP**.

LorCh, **SavBuDa**, **SwiC_f CoB**.

TABLE IV.

THE PARTICULAR DIVISIONS OF SOUTHERN EUROPE.

I. SPAIN (excluding Portugal) may be divided into two general parts :

Northern—containing eight provinces, viz. GALlicia, A-sturia, BISCay, N-avarre, ARAGON, CATALonia, LEON, Old (*vetus*) CASTile.

Southern—containing five provinces, viz. New (*nova*) CASTile, VALEncia, ANDalusia, MURcia, G-ranada.

The Memorial Line.

SPA = Gál-A-Bisc-N-Ara-Cat, Lé-Casvet ; Casno-Val, And-MurG.

II. ITALY might formerly be distinguished into

Northern, or LOMBardy—containing PIEDmont, MONT-serrat, MILan, G-enoa, VENice, MANTua, PARma, MIRandola, MODena.

Southern—LUcca, Tuscany or Etruria, the PAPacy or States of the Church, NAPles.

The Memorial Line.

IT = Lom (= Pi-Mont-MilG, VenManPa-Mi-Mód), Lu-Tu, Pap-Nap.

III. TURKEY in EUROPE may be distinguished into

Northern—containing BESSarabia, CROatia, D-almatia, BOSnia, SERvia, BULGaria.

Southern—containing ALBania, MACedonia, ROMania, CHIMæra, Janna, LIVADia, MOREa.

The Memorial Line.

TURK = Bess, CroD-Bó-Se-Bulg ; Alb-Mac-Rom, Chim-Ja, LivadMor.

The Memorial Lines for all Europe.

NOR=Ward (F-Lap), DroBerAns. SWED=Lá (B),
SweP-Fin Goth.

DEN=Jut-Zea. —

RUSS=Lap-Dwi; FinEst Liv, Ing-Nov-Mosc; Lith-
Pol-Mo-Ukr-Bel; Bud-Crim-Vor-DouK.

HOLL=Fries-GrOv, H-U-Gue-Zu Z; Fla-B (Mar-
Ma), GLim Art-Hai-Na-Luxem.

GERM=We-Sal-up; Rhil-u-Fran; Sua-Bav-Aus.

BOHE=Lusa-Si-BoP-Mor.

POL=CouSa-Lith, Pru-Polach, Maz, Polma-pa, Rus-
VolhiPodol.

FRA=P Nor-I-Cham; Brét-O-BouL; Guí-La-DaP.
LorCh, SavBuDa, ŠwiC, CoB.

SPA=Gál-A-Bisc-N-Ara-Cat, Lé-Casvet; Casno-Val,
And-MurG.

IT=Lom (=Pi-Mont-MilG, VenManPa-Mi-Mód), Lu-
Tu, Pap-Nap.

TURK=Bess, CroD-Bó-Se-Bulg; Alb-Mac-Rom,
Chim-Ja, LivadMor.

TABLE V.

ENGLAND, WALES, IRELAND, AND SCOTLAND.

I. ENGLAND may be divided into three general parts, *northern*, *middle*, and *southern*; which altogether contain forty counties or shires.

The *northern* part of England contains six counties or shires :

<i>On the west coast, from north to south,</i>	<i>On the east coast, from north to south,</i>
CUMBERLAND	NORTHUMBERLAND
WESTMORELAND	DURHAM
LANCASHIRE	YORKSHIRE
[Cum-WeLa]	[NorDurYor]

The *middle* part of England contains twenty-four counties or shires :

On the west, joining to Wales from north to south, *On the east coast, from north to south,*

CHeshire . }
SHropshire } LINcolnshire

HERefordshire } N-orfolk
S-uffolk

MONmouthshire ESsex

[CheShHeMon]

[Li NSEss]

Between Lincolnsh. E. & Cheshire & Shropshire W. *Between Norfolk & Suffolk E. and Herefordshire W.* *Between Essex E. and Monmouthshire W.*

DERbyshire }
NOTting- } N.
hamshire }

STAFFordshire

LEIcestershire

R-utlandshire

[De-No-Staf-
Lei-R]

WORcestershire

WARwickshire

NORTHamptonshire

B-edfordshire

HUNtingdonshire

C-ambridgeshire

[Wor-Wá-No-
B-Hun-C]

GLoucestershire

O-xfordshire

BUCKinghamshire

HERtfordshire

M-iddlesex

[Gl-O-Buc-
HerM]

The *southern* part of England contains ten counties or shires:

Between the Channel & the Severn sea *Between the Channel and the Thames.*

CORNwall }
DEVonshire } —Corn-
SOMersetshire } Dev-So
DORsetshire } Do

WILTshire }
BERkshire } —Wilt-
HAMpshire } BerHa-
SURREY } SurS-Ken
S-ussex }
KENT }

The Memorial Lines.

E=Cum-WeLa, NorDurYor,CheShHeMon, Li NSEss,
De-No Staf-Lei-R,

Wor-Wá-No-B-Hun-C, Gl-O-Buc-HerM, Corn-Dév-
SoDo, Wilt-BerHa-SurS-Ken.

The division of England according to the Circuits:

WESTERN.	OXFORD.
Cor-Dé-Dor-Ham, Som- Wilt.	Ber-O-Glouce-Mon, Wór- cest-Here-Shrop Staff.

HOME. Hert-Ess-Ken-Sur-Sus.	MIDLAND. North-Rut-Linc, Derby- No-Leice-War.
NORFOLK. Nórf-Su-Cam, Hun-Eéd- Buck.	NORTHERN. Yor-Dur-Nor, Lánca-We- Cumber.

II. WALES is divided into two general parts :

North Wales—containing ANGLEsey, CAernarvonshire, DENbighshire, FLintshire, MERionethshire, MONTgo-meryshire.

South Wales—containing CARDiganshire, RADnor-shire, PEMbrokehire, CARMarthenshire, BREcknock-shire, GLAMorganshire.

The Memorial Line.

W = Ang-Cá-De-Fli-Ch, Meri-Mont-Sh ; Card-Radn-Here, Pem-Ca-BreGlam-Mon.

N. B. The *italic* letters denote the adjoining counties of England : as *Ch* Cheshire, adjoining to Flintshire ; *Sh* Shropshire, adjoining to Montgomeryshire ; *Here* Herefordshire ; *Mon* Monmouthshire.

III. SCOTLAND is divided into two general parts :

North Scotland, or Highlands, beyond the river Tay—containing thirteen counties, among which are STRATH-navern, CAITHness, SUTHERland, ROSS, LOChabar, MURray, BRAIdalbin, P-erth.

South Scotland, on this side the Tay—containing twenty counties, some of which are ARGyle, Fife, LOthian, AIRE, GALLOWay.

The Memorial Line.

SCOT = Strath-Caith, SúthRoss, Loch -Mur, BraiP ; Arg -Fi, Lo-Air, Gal.

IV. IRELAND is divided into four larger parts or provinces :

ULSTER to the north	LEINster to the east
MUNSTER to the south	CONnaught to the west

The Memorial Line.

IREL = Ulst, Léin-Con, Munst.

TABLE VI.

CHIEF CITIES AND REMARKABLE PLACES.

IN ANCIENT FRANCE.

Amiens ch. town in <i>Picardy</i>	BOURDEAUX in <i>Guienne</i>
P-aris in the <i>Isle</i> of France	THOULOUSE in <i>Languedoc</i>
ROUEN in <i>Normandy</i>	GRENOBLE in <i>Dauphiny</i>
TROYES } in <i>Champagne</i>	DIJON in <i>Burgundy</i>
RHEIMS }	AIX }
RENNES in <i>Bretagne</i>	MARSEILLES } in <i>Provence</i>
POICTIERS in <i>Orleannois</i>	ORANGE }

The Memorial Lines.

Am*Pica*, P*Isle*, Rou*Nor*, Troy-Rhei*Cham*, Rén*Breta*,
 Poict*Orl*,
 Bourd*Gui*, Thou*Lang*, Gren*Dau*, Dijón*Burg*, Aix-Mar
 & Or*Prov*.

IN THE NETHERLANDS.

MIDDLEBURG in <i>Zeland</i>	DUNKIRK }
DEVENTER in <i>Overyssel</i>	DOUAY } in <i>Flanders</i>
LEUWARDEN in <i>Friesland</i>	MONS }
BRUSSELS in <i>Brabant</i>	CAMBRAY } in <i>Hainault</i>
BRUGES in <i>Flanders</i>	LOO in <i>Guelderland</i>
CHARLEROI in <i>Namur</i>	ANTWERP in <i>Brabant</i>

The Memorial Lines.

Mid*Zea*, Dev*Overyss*, Leuwár*Fries*, Brús*Braba*, Brug*Flan*,
 Charl*Nam*, Dunk-Dóua*Fland*, Mon-Camb*Hain*, Loo*Guel*
 & Ant*Brab*.

IN GERMANY.

HAMBURG } ch. towns in	FRANCFORT in Upper <i>Rhine</i>
HANOVER } L-ow. <i>Saxony</i>	NUREMBERG in <i>Franconia</i>
WITTENBERG in UP. <i>Saxony</i>	MUNSTER in <i>Westphalia</i>
HEIDELBURG } in Lower	STRASBOURG }
COLOGNE } <i>Rhine</i>	} <i>Rhine</i>
MUNICH in <i>Bavaria</i>	CLEVES in <i>Westphalia</i>
AUGSBURG in <i>Suabia</i>	VIENNA in <i>Austria</i>

The Memorial Lines.

Hamb-HanoSal, WitSup, Hei-ColRhilo, MunBavar,
 AugSuab,
 FrancRhup, NurF, MunsWest, StrasRhup, ClevWestpha,
 ViennAust.

IN SPAIN.

BILboa in <i>Biscay</i>	PAMPELuna in <i>Navarre</i>
COMPostella in <i>Gallicia</i>	SARAGossa in <i>Arragon</i>
SEville in <i>Andalusia</i>	BURGos in <i>Castile vetus</i>
BARcelona in <i>Catalonia</i>	MADrid in <i>Castile nova</i>
Oviedo in <i>Asturia</i>	TORTosa in <i>Catalonia</i>

The Memorial Lines.

BilBis, ComposGal, SevAndal, BarCatal, OvAst,
 PampelNav, SaragAr, BurgCas-vet, MadCa-no, TortCut.

IN TURKEY IN EUROPE.

SOPHia ch. town in <i>Bulgaria</i>	TERGOvisk in <i>Walachia</i>
BELGrade in <i>Servia</i>	HERman- } in <i>Transyl-</i>
SERAIO in <i>Bosnia</i>	stadt } <i>vania</i>
SPALatro in <i>Dalmatia</i>	CHOCZim in <i>Moldavia</i>
SALONichi in <i>Macedonia</i>	CONSTanti- } in <i>Romania</i>
CARLstat in <i>Croatia</i>	nople }

The Memorial Lines.

SophBul, BelgServi, SeraiBos, SpalDa, SalonMac,
 CarlsCro, TergoWaluch, HermTransyl, ChocziMo, Con-
 stRom.

TABLE VII.

REMARKABLE PLACES (SPARSIM) IN EUROPE.

FONTARabia in <i>Biscay</i>	Cassel in <i>Upper Rhine</i>
RATIsbon in <i>Bavaria</i>	ARCHangel in <i>Dwina</i>
PADua in <i>Venice</i>	HOCHstet } in <i>Bavaria</i>
NIMEguen in <i>Guelderland</i>	BLENHEIM }
OLIVA in <i>Prussia</i>	St. OMERS in <i>Artois</i>
CONStance in <i>Suabia</i>	VERden } in <i>Lower Saxony</i>
AIX-LA-CHA- } in <i>West-</i>	BREMen }
pelle } <i>phalia</i>	MAGdeburg in <i>Lo. Saxony</i>
MONTPELier } in <i>Langue-</i>	CALAis in <i>Picardy</i>
doc }	BADen in <i>Suabia</i>

BENEVENTO in <i>Naples</i>	CORDOVA in <i>Andalusia</i>
BREDA in <i>Brabant</i>	CARTHAGENA in <i>Murcia</i>
CADIZ in <i>Andalusia</i>	BESANÇON { in <i>Franché</i>
AGINCOURT in <i>Artois</i>	{ <i>Comté</i>
MITTAW in <i>Courland</i>	LIEGE in <i>Westphalia</i>
MALAGA in <i>Granada</i>	CREMONA in <i>Milan</i>
TRIEURS in <i>Lower Rhine</i>	BATCHISERAI { in the PENIN-
MAESTRICH in <i>Limburg</i>	{ sula of Little
HAVRE- { in <i>Normandy</i>	{ <i>Tartary</i>
de-Grace }	NANCY in <i>Lorraine</i>
VALEDOLID in <i>Old Castile</i>	LEGHORN { in <i>Tuscany</i>
TOLEDO in <i>New Castile</i>	FLORENCE }
MEAUX in <i>Champagne</i>	GENEVA in <i>Switzerland</i>
SOISSONS in <i>Isle of France</i>	LISBON in <i>Portugal</i>
AVIGNON in <i>Provence</i>	RAGUSA in <i>Dalmatia</i>
NASSAW in <i>Upper Rhine</i>	BRESLAW in <i>Silesia</i>
CITADELLA in <i>Minorca</i>	PRAGUE in <i>Bohemia</i>
CAGLIARI in <i>Sardinia</i>	STETIN in <i>Pomerania</i>
PALERMO in <i>Sicily</i>	PERPIGNAN in <i>Rousillon</i>
SLESIWEK in <i>Jutland</i>	TRENT in <i>Tyrol</i>
BASTIA in <i>Corsica</i>	STRASBURG in <i>Alsace</i>
CRACOW in <i>Poland</i>	POLA in <i>Istria</i>
WARSAW in <i>Mazovia</i>	POSEGA {
BERGEN in <i>Norway</i>	PETERWA- { in <i>Sclavonia</i>
COPENHAGEN in <i>Zealand</i>	RADIN }
NISMES in <i>Languedoc</i>	BERLIN in <i>Brandenburg</i>
CHRISTIANA in <i>Aggerhuys</i>	DRESDEN { in <i>Saxony</i>
TURIN in <i>Piedmont</i>	LEIPSIK }
RIGA in <i>Livonia</i>	RAVENNA in <i>Romagna</i>
ROCHELLE in <i>Orleanois</i>	LORETTO in <i>Ancona</i>
GOTTENBURG in <i>Gothland</i>	
LUNDEN in <i>Sconen</i>	ROUSILLON { part of <i>Cata-</i>
CRESSY in <i>Picardy</i>	{ <i>lonia</i>
SALAMANCA in <i>Leon</i>	SCLAVONIA of <i>Hungary</i>
ZELL in <i>Lower Saxony</i>	TYROL of <i>Austria</i>
CHAMBERRY in <i>Savoy</i>	POMERANIA { of <i>Upper</i>
DANTZIC in <i>Poland</i>	BRANDENBURG }
STOCKHOLM { in <i>Sweden</i>	SAXONY }
{ <i>P-roper</i>	{ of the late <i>Venetian</i>
PRESBURG in <i>UP. Hungary</i>	ISTRIA { territories

ANcona	{ part of the Papacy or	BERRY	} of Orleannois
ROMagna		ANJOU	
	{ states of the Church	HOLSTEIN	{ part of Lower Saxony
LIMOSin part of Guienne		CAPitanate part of Naples	

The Memorial Lines.

Fontára *Bisc*, Rati *Bav*, Pad *Ven*, Nim *Gaúlder*, Oliv *Prus*,
Const *Suab*, Aix-la-Cha *West*, Montpel *Lang*, Cass *Rhup*
& Arch *Dwin*,

Hoch-Blenhe *Bav*, Omer *Art*, Verd *Brem* *Salo*, Magd *Sa-*
lo, Cal *Pic*,

Bad *Suab*, Benven *Nap*, Bred *Brab*, Cad *Andal*, Aginc *Art*,
Mit *Courland*, Mala *Gran*, Trie *Rhil*, Maest *Limbur*, Ha-
vred *Norm*,

Valedol *OC*, Tol *New C*, Meaux *Cham*, Soiss *Isle & Avig* *Prov*,
Nass *Rhup*, Citadel *Min*, Cag *Sard*, Paler *Sici*, Sles *Jut*,
Bast *Corsic*, Craco *Polp*, Wars *Mazov*, Berge *No*, Cop *Zeal*
Nism *Langued*, Christ *Agg*, Turin *Pied*, Riga *Li*, Roch *Orl*,
Go *G*, Lund *Scon*, Cress *Pic*, Salamanc *Le*, Zell *Salo*,
Cham *Sav*,

Dantzic *Pol*, Stock *Swep*, Prés-np *Hung*, Cord *Andalu*
Cart *Mur*,

Bes *Fran-Com*, Liege *West*, Crem *Mil*, Batch *Tarta-pe*.
Nan *Lor*,

Leg-Flor *Tusc*, Gen *Switz*, Lis *P*, Rag *Dal*, Bres *Sile*,
Prag *Bo*,

Stet *Pomeran*, Perp *Rous*, Tren *Tyr*, Strasb *Alsa*, Pol *Istri*,
Pos-wara *Slav*, Berl *Bran*, Dres-Leip *Sax*, Rav *Ro*, Lo-
rett *Anc*,

Rous *Catalon*, Slav *Hung*, Tyrol *Aust*, Pom-Brand-Sa *Sup*,
Ist *Ven*,

Anc-Rom *Pap*, Limo *Guenn*, Berr-Anj *Orl*, Holst *Salo*,
Cap *Nap*.

TABLE VIII.

SOME CHIEF CITIES AND REMARKABLE PLACES IN ASIA,
AFRICA, AND AMERICA.

PEKin capital of China	CHAMBalu in Tartary
AGRa in India	ISPahan in Persia

ALEPPO capital of <i>Syria</i>	PORTroseway { in <i>Nova</i>
CAIRO in <i>Egypt</i>	} <i>Scotia</i>
FEZ in <i>Barbary</i>	ASTRACHAN in <i>Tartary</i>
DAARA in <i>Bildulgerid</i>	NICOSIA in <i>Cyprus</i>
TOMBUTE in <i>Negroland</i>	MOUSUL { in <i>Diarbec</i>
MONOMOTOPA { in <i>Æthiopia</i>	BAGDAT {
} SUPERIOR	SMYRNA in <i>Natolia</i>
DANGOLA in <i>Nubia</i>	AZOV in <i>Circassia</i>
CHAXUMO in <i>Æthiopia</i> INF.	
S. FE in <i>Granada</i>	NATOLIA
S. SALVADOR in <i>Brazil</i>	SYRIA
S. JAGO in <i>Chili</i>	Diarbec
ASSUMPTION in <i>Paraguay</i>	TURCOMANIA
QUEBEC in <i>Canada</i>	MINGRELIA of <i>Georgia</i>
PHILADELPHIA { in <i>Pennsylv-</i>	CARAMANIA
} <i>vania</i>	AMASIA
JAMES TOWN in <i>Virginia</i>	NATOLIA Prop.
BALTIMORE in <i>Maryland</i>	ALADULIA

} parts of
} *Turkey*
} in *Asia*
} of *Natolia*
} largely
} taken

The Memorial Lines.

PekChín, AgrInd, ChambTart, IspPers, AlépSyri, CairE,
FezBarb, DaaBildul, TombNeg, MonomÆthsupe, Dang-
Nub,

ChaxÆthinf, FéGran, SalvBraz, JagóChili, AssPar,
QuebCanadá, PhilPenns, JamVirgin, BaltMary, Port-
No-Se,

AstracTart, NicoCyp, Mous-BagDia, SmyrNat, Azov-
Circ,

Nat-Syri-Di-TurcTur, MingGeorg, Car-Amás-Nat-Alád-
Nat.

TABLE IX.

LATITUDE AND LONGITUDE OF THE MOST REMARKABLE PLACES.

To the beginning of the name of the place is added a *technical* ending, consisting of three or four letters, the two first whereof denote the latitude, the other the longitude: thus,

Stocklou-ak, i. e. Stockholm in the 59th degree of

latitude, and 18th of longitude; *lou* standing for 59, according to the general key, and *ak* for 18. But this is not the *exact* longitude and latitude of the place, because no minutes are taken notice of, which would perhaps be a nicety not worth remembering: but that the latitude is between 59 and 60, and the longitude between 18 and 19.* And it is farther to be observed, that if of the two letters which signify the longitude and latitude, the first is a *consonant*, as in *lou*, in that case, though the longitude, &c. is between 59 and 60, yet it is nearer to 60 than it is to 59, and consequently 59 degrees 30 minutes at least, if not more. If the first letter is a *vowel*, as in *ak*, though it is between 18 and 19, yet it is nearer to the *lesser* number, and consequently 18 degrees and *under* a half; as the true longitude of Stockholm is 18 degrees 22 min., the true latitude 59 degrees 30 minutes

	Lat.	Lon.
†BERGEN—Bersy- <i>l</i>	60	5
STOCKHOLM—Stocklou- <i>ak</i>	59	18
MOSCOW—Moslu- <i>tei</i>	55	38
COPENHAGEN—Coplu- <i>be</i>	55	12
PARIS—Parfk- <i>e</i>	48	2
CRACOW—Cracúz- <i>cz</i>	50	20
VIENNA—Viok- <i>ap</i>	48	17
MADRID—Madroy- <i>t</i>	40	3
ROME—Romfá- <i>be</i>	41	12
CONSTANTINOPLE—Conob- <i>ta</i>	41	31
PRAGUE—Pragly- <i>bo</i>	50	14
DANTZIC—Dantzuf- <i>bei</i>	54	18
BASIL—Básilfoi- <i>p</i>	47	7
BRUSSELS—Brusly- <i>o</i>	50	4
†GIBRALTAR—Gibtau- <i>s</i>	36	6
†SMYRNA—Smik- <i>dou</i>	38	29
TROY—Troy- <i>en</i>	40	29
†JERUSALEM—Jeruta- <i>ts</i>	31	36

* This accuracy hath not been altogether observed in those places which have this mark (†) placed before them; the assigning to them their respective degrees of longitude and latitude being intended only to enable the learner to remember in what part of the globe they are situated.

	Lat.	Lon.
ALEPPO— <i>Alepís-tei</i>	36	38
RHODES— <i>Rhotoi-te</i>	37	32
†BABYLON— <i>Babit-fo</i>	33	44
ATHENS— <i>Athik-el</i>	38	25
IDA— <i>Idil-doi</i>	35	27
WARSAW— <i>Warsúd-ch</i>	52	21
ALEXANDRIA— <i>Alexib-if</i>	31	34
S. HELENS— <i>Helbu-p</i>	15	7
LISBON— <i>Listei-bz</i>	38	10
NAPLES— <i>Naplob-bu</i>	41	15
MESSINA— <i>Messik-bau</i>	38	16
†CARTHAGE— <i>Carthti-hy</i>	33	10
NANCY— <i>Nanfei-s</i>	48	6
†ISPAHAN— <i>Ispte-on</i>	32	49
AGRA— <i>Agrek-oit</i>	28	73
SIAM— <i>Siamaf-ga</i>	14	100
†JAPAN— <i>Japto-bay</i>	34	110
†FORMOSA— <i>Fonndi-g</i>	23	100
†ASTRACHAN— <i>Astrop-lau</i>	47	56
PEKIN— <i>Pekinoz-bap</i>	40	117
†FORT ST. GEORGE— <i>Gëobí-sou</i>	13	69
†SPITSBERGEN— <i>Spitpi-sou</i>	73	69
ARCHANGEL— <i>Archso-fe</i>	64	42
BENGAL— <i>Bengdá-oul</i>	21	95
VENICE— <i>Venjt-ad</i>	45	12
CAIRO— <i>Cairdou-il</i>	29	35
LEIPSIC— <i>Leipsub-ad</i>	51	12
†HECLA— <i>Hecsl-at</i>	65	13
†NINEVEH— <i>Ninto-fe</i>	34	42
†PORTO BELLO— <i>Belbá-ku</i>	11	85
†PORTO RICO— <i>Ricéz-lou</i>	20	59
†BERMUDAS— <i>Bermta-lou</i>	31	59
†J-amaica— <i>Jak-ky</i>	18	80
†TERCERA chief of the Azores I.— <i>Tercerip-el</i>	37	25
†MADEIRA Isles— <i>Madit-el</i>	33	22
†BARBADOES— <i>Barbu-la</i>	15	51
†FERRO one of the Canary Isles— <i>Ferrek-ak</i>	28	18
†QUEBEC— <i>Quop-pu</i>	47	75

N. B. The first meridian is fixed at London.

It may be convenient to remember the *exact* longitude and latitude of some particular places; as,

	Lat. Deg.	Min.	Lon. Deg.	Min.
LONDON—Lónla, <i>ib</i>	51	31	—	0 0
FERRO Isl.—Ferrép, <i>op-ap, il</i>	27	47	—	17 35W
Oxford—Oxlá, <i>fs-b, al</i> . . .	51	46	—	1 15W
ROME—Rómfa, <i>lo-bé, dou</i> . .	41	51	—	12 29E

The Memorial Lines.

Bersy-l, Stocklou-ak, Moslu-tei, Coplu-be, Parfk-e,
 Cracúz-ez, Viok-ap, Madroy-t, Romfá-be, Conob-ta,
 Pragly-bo, Dantzuf-bei, Básilfoi-p, Brusly-o, Gibtau-s,
 Smik-dou, Troy-en, Jeruta-ts, Alepís-tei, Rhotoi-te,
 Babit-fo,
 Athik-el, Idil-doi, Warsúd-eb, Alexib-if, Helbu-p,
 Listei-bz Naplob-bu, Messik-bau, Carthti-by, Nanfei-s,
 Ispte-on, Agrék-oit, Siamaf-ga, Japto-bay, Formdi-g,
 Astrop-lau, Pekinoz-bap, Gëobi-sou, Spitpi-sou, Archsć-fe,
 Bengdá-oul, Venft-ad, Cairdou-il, Leipsub-ad, Heesl-at,
 Ninto-fe, Belbá-ku, Ricéz-lou, Bermta-lou, Jak-ky,
 Tercerip-el, Madit-ed, Ferrek-ak, Barbu-la, Quop-pu.
 Lónla, *ib*; Ferrép, *op-ap, il*; Oxlá, *fs-b, al*; Rómfa, *lo-bé, dou*.

TABLE X.

DISTANCE OF CHIEF CITIES, &c. FROM LONDON, IN ENGLISH
 MILES.

To the beginning of the name of the place there are two or three letters added, which are to be supplied with a cypher at the end; it being thought sufficient to give a round number, instead of being too exact, especially in a matter wherein the best geographers themselves are not agreed: as,

Madreis —MADRID distant from London 86, *sc.* 860 miles. COPENHAGEN—COPSA, distant about 61, *sc.* 610. GENEVA—GENEVOS; distant 46, *sc.* 460 miles; and so of the rest, only PARIS—PARDEL, 225.

Note, That the computations are made at the rate of $69\frac{1}{2}$ statute miles to a degree, which is nearest the truth, and are therefore about one part in seven more than in Mr. Templeman's tables, who computes by geometrical miles of 60 to a degree.

DISTANCES FROM LONDON.

	Eng. Miles.		Eng. Miles.
PARIS—Pardel . . .	225	PRAGUE—Praul . . .	650
ROME—Roul . . .	950	GIBRALTAR—Gibrabs .	1160
MADRID—Madreis . .	860	WARSAW—Warsnu . .	950
VIENNA—Vienke . . .	820	STOCKHOLM—Stoup . .	970
COPENHAGEN—Copsa .	610	DANTZIC—Dantziky . .	800
GENEVA—Genevos . .	460	CONSTANTINOPLE—	
MOSCOW—Moscass . .	1660	Constasg	1600

DISTANCES FROM JERUSALEM.

BABYLON—Baboky . .	480	DAMASCUS—Dam-	
NAZARETH—Nazky . .	80	buz	150
SAMARIA—Samol . . .	45	ANTIOCH—Antig . . .	300
From DAN to BEERSHEBA—		Dan-a-Béerdoz . . .	240

The Memorial Lines.

Pardel, Roul, Madreis, Vienke, Copsa, Genevos,
Moscass, Praul, Gibrabs, Warsnu, Stoup, Dantziky,
Constasg.

Baboky, Nazky, Samol, Dambuz, Antig,—Dan-a-Béerdoz.

TABLE XI.

THE PROPORTION OF THE COUNTRIES OF EUROPE TO GREAT
BRITAIN, THAT ISLAND BEING THE UNIT.

RUSSIA—Russ-		POLAND—Polt,in . .	3,39
az,bi	10,13	TURKEY—Turt,ak . .	3,18
GERMANY—Germ-		SPAIN—Spa,ka . . .	1,81
t,ut	3,53	FRANCE—Fra,p . . .	1,7
SWEDEN—Swi,ss . .	3,66	* ITALY—Itb,an . . .	1,19

* With Sicily, Corsica, and Sardinia

*DENMARK—Dén-		United Provinces†	
mab,on	1,49	—Un-Pr,ab	,11
Portugal—Por,ts . .	,36	SWITZERLAND†—	
SPANISH N-ether-		Switzer,boi	,17
lands†—Span-N,ak .	,18	Britain	1,00

The Memorial Lines.

Russaz,bi, Germt,ut, Swi,ss, Polt,in, Fra,p, Spa,ka,
Turt,ak,
Por,ts, Span-N,ak, Un-Pr,ab, Switzer,boi, Dénmab,on,
Itb,au.

EXPLANATION.

Germt,ut—GERMANY is to Great Britain as 3,53 to 1, *i. e.* three times as big and a little above half as big. United Provinces—Un-Pr,ab, as ,11, or very little above a tenth part; and so of the rest.

Note, That a degree is esteemed equal to 60 GEOMETRICAL miles, $69\frac{1}{2}$ English statute miles, 15 GERMAN miles, 25 common FRENCH leagues, 480 GREEK STADIA, 16 PERSIAN PARASANGS, 12 (or, according to some, 8) EGYPTIAN SCHœNI.

The Memorial Line.

Deg=Gëomauz=Gerbv=Frel=Stadoky=Pers-parabáu
=Schad.

TABLE XII.

SITUATION OF ISLANDS.

1. EUROPEAN ISLANDS.

In the	{	ICeland west of Norway—IceNor	
Northern Ocean	{	Britain and Ireland	
In the Baltic . .	{	ZEALand	{ E. of Jutland—FunZeal-
	{	FUNen	{ Jut
In the	{	Minorca	{ E. of Valencia—
Mediterranean .	{	MAJORca	{ MiMajorcY Valenci
	{	Y-vica . .	{

* Including Norway and Iceland.

† Now in possession of France.

In the Mediterranean	{	Corsica . .	} south of <i>Genoa</i> —CoSard <i>Gen</i>
		SARDINIA . .	
		SICILY south of <i>Naples</i> —Sici <i>Na</i>	
		CANDIA south of the <i>Archipelago</i> —Cand- <i>Archpel</i>	
		CORFU west of <i>Butrinto</i> —Corf <i>But</i>	
		CEPHALONIA W. . .	} of the <i>Morea</i> —Cepha-
		ZANTE W. . .	
		CERIGO S. . .	
			{ ZantCe <i>Mo</i>
	{ NEGROPONT east of <i>Livadia</i> —Neg <i>Liv</i>		

The Memorial Lines.

Ice*Nor*, Fun*ZealJut*, MiMajorc*Y Valenci*, CoSard*Gen*,
Sici*Na*, Cand*Archpel*, Corf*But*, CephaZantCe*Mo*, Neg*Liv*.

II. ASIATIC ISLANDS.

In the Eastern Ocean	{	JAPAN east of <i>North China</i> —Jap <i>norCh</i>	
		FORMOSA E. of <i>South China</i> —Formósou <i>Chin</i>	
		PHILIPPINE Islands east of the <i>Eastern Penin-</i> sula—Philip <i>eastPen</i>	
		LADRONE Isl. E. of the <i>Philippines</i> —Lad <i>Phi</i>	
		MOLUCCA Islands east of the <i>Eastern Penin-</i> sula—Molúc <i>P-east</i>	
		Isles of the SOUND south-east of the <i>Eastern</i> <i>P-eninsula</i> —Sound <i>P-east</i>	
In the Mediterranean	{	MALDIVES S. . .	} of the <i>Western Peninsula</i> —
		CEYLON E. . .	
		{ Mal-Céy <i>P-west</i>	
In the Mediter- ranean	{	RHODES . . .	} south of <i>Natolia</i> —RhodCyp <i>Nato</i>
		CYPRUS . . .	
In the Archipelago	{	STALimene . . .	} west of <i>Natolia</i> north to south—
		METelin . . .	
		SCIO . . .	
		SAMOS . . .	
		{ StalMeSci <i>SámNat</i>	

The chief of the MOLUCCA Isles are CELEBES or Macas-
sar, GILOLO, CERAM, AMBOYNA.

The chief of the PHILIPPINES are MANILLA and MIN-
danao.

Isles of the SOUND, the chief are SUMATRA, BORNEO,
and JAVA.

The Memorial Lines.

Japnor*Ch*, Formó*souChin*, Philipeast*Pen*, Lad*Phi*, Mo-
lúc*P-east*,
Sound*P-east*, Mal-Céy*P-west*, RhodCyp*Nato*, StálMe-
SciSám*Nat*.

MO*L*=Cele-GilCér-Amb. PHIL=ManMind. SOUND
=Suma-BornJav.

III. AFRICAN ISLANDS.

In the Æthi- opic Ocean	{	MADAGASCAR, or the Isle of St. Laurence, E. of the south part of <i>Zanguebar</i> —Madgasc <i>Zang</i> ZOCOTRA at the east end of the coast of <i>Ajan</i> — ZOC <i>Ajan</i> St. HELENS west of <i>Congo</i> —Hel <i>Congo</i>
In the Atlan- tic Ocean	{	Isles of Cape VERD W. of Negroland—Verd <i>Ne</i> CANARY Isles west of <i>Bildulgerid</i> —Canár <i>Bild</i> MADEIRA Isles west of <i>Barbary</i> —Madéir <i>Barb</i> Azore Isles west of <i>Portugal</i> —Az <i>Port</i>
In the Mediterranean	{	MALTA south of <i>Sicily</i> —Malt <i>Sic</i> PHAROS at the mouth of the port to <i>Alexan-</i> dria—Phar <i>Alexan</i>

The chief of the CANARY Isles are FERRO or HIERO,
TENERIFFE, CANARY.

The chief of the AZORES, TERCERA.

The chief of the MADEIRA Isles, PORTO SANTO and
MADEIRA.

The Memorial Lines.

Madgasc*Zang*, ZOC*Ajan*, Hel*Congo*, Verd*Ne*, Canár*Bild*,
Madéir*Barb*, Az*Port*, — Malt*Sic*, Phar*Alexan*.

CAN = FerHi-TeneCan. AZ = Terce. MADEIRA =
PoSanMad.

IV. AMERICAN ISLANDS.

NEWFOUNDLAND east of *Nova Scotia*—Newf*NovScot*
CALIFORNIA west of *New Granada*—Cali*Gran*

CARIBbee Isles east of the *Antilles*—Carib*Ant*

LUCayos Isles east of *Florida*—Lu*F*

BERMudas, or Sommers' Isles, E. of *Carolina*—Berm*Car*

ANTILLES Isles south of *Lucayos* Isles—Antil*Luc*

The chief of the LUCayos Islands are BAHama, LUCayone, PROVIDence.

The chief of the CARIBbee Islands are BARBadoes, and the Leeward Isles, viz. St. CHRISTopher's, ANTigua, TOBago, &c.

The chief of the ANTILLES Islands are CUBa, JAMAica, HISPaniola, Porto RICO.

The Memorial Lines.

Newf*Nov*Scot, Cali*Gran*, Carib*Ant*, Lu*F*, Berm*Car*, Antil*Luc*.

LUC=Ba-Lu-Prov. CARI=Barb, Chr-Ant-Tob. AN-TILL=Cu-Jam-Hisp-Ric.



TABLE XIII..

THE MOST REMARKABLE OF THE LESSER BRITISH ISLANDS.

ORKney } north of Scotland—Ork-Shetno-Sc
SHETland }

HOLY Island east of *Northumberland*—Holy*North*

CANvey Island } near the { *Essex*—Canv*Ess*

SHEPpey Isl. } } mouth of the { *Kent*—Shep-Than*Ken*

THANet } } Thames in {

ANGLEsey west of *Caernarvonshire*—Ang*Caern*

MAN west of *Lancashire*—Man*Lan*

RAMsey over against St. *David's* Point in *Pembroke*-shire—Ram*Davi-Pem*

Wight (VEctis) south of *Hampshire*—Vecs-*Ham*

GUERNsey } on the coast of *Normandy*—Guer-Jerco-*Nor*

JERsey }

Western Islands (EBudæ) west of Scotland—Ebwe-*Sc*

The Memorial Lines.

Ork-Shetno-Se, HolyNorth, CanvEss, Shep-ThanKen,
 & AngCaern,
 ManLan. RamDavi-Pem, Vecs-Ham, Guer-Jerco-Nor,
 Ebwe-Se.

 TABLE XIV.

ANCIENT EUROPE, ASIA, AND AFRICA.

I. Ancient EUROPE, by way of accommodation to the present divisions of it, may be divided into,

1. *Northern*—containing SCANDINAVIA, FENINGIA, part of SARMATIA, CIMBRICA Chersonesus, CODANONIA Insula.

2. *Middle*—containing GERMANIA, the rest of S-armatia, G-aillia Transalpina or Celtogalatia, RHÆTIA, V-indelicia, NORICUM, part of PANNONIA, D-acia.

3. *Southern*—containing IBERIA, ITALIA, the rest of P-annonia, ILLYRICUM, MÆSIA, G-ræcia, THRACIA.

The Memorial Line.

EUR=Sca-Fe, Sarm, Cimb-Cod; Ger-S, G-Rhæ-V-
 No-Pa-D; Ib-Ita-Pill-MæG-Th.

II. ASIA Antiqua may be divided into,

1. *Northern*—containing SCYTHIA Asiatica, SOGDIANA, COLCHIA, IBERIA, ALBANIA.

2. *Middle*—containing Asia Minor, ARMENIA, SYRIA, MESOPOTAMIA, ASSYRIA, MEDIA, HYRCANIA, BACTRIANA, ARACHOSIA, BABYLONIA, SUSIANA, PARTHIA, ARIA, DRANGIANA, PERSIS, CARAMANIA, GEDROSIA, N-orth part of INDIA, SERICA, SINÆ.

3. *Southern*—containing ARABIA, the two P-eninsulas of INDIA.

The Memorial Lines.

AS=ScythiSogd, Col-Ib-Alb; Asm-Arm, Sy-Mes-Ass-
 Med-Hy-BactArch,
 Bab-Sus-Parth-AriDian, Pers-Car -Gedro, NInd-Se-
 Sin; Ar -P-Ind.

III. AFRICA was anciently divided into,

1. *Northern*—containing MAURITANIA, T-INGITANIA, and CÆSARIENSIS, NUMIDIA, AFRICA P-ROPRIA, LIBYA (comprehending CYRENAICA and MARMARICA), E-GYPT, GÆTULI, GARAMANTES, NASAMONES, PSYLLI.

2. *Middle*—containing LIBYA Deserta or Interior, comprehending the ATLANTES, PHAURUSII, NIGRITÆ, NUBIA, ÆTHIOPIA.

3. *Southern*—containing the LUCÆTHIOPEs, EREMBI or TROGLODYTÆ, BLEMMEs.

The Memorial Lines.

AF=MAN T-CÆS-Numid-AfP-Liby-(Cyr-Mar)-E,
GætGara-NasPsyl;

Libydes = AtlántPhauNig-Nub-Æth; Léucaeth-Erem-Blem.

TABLE XV.

ANCIENT ITALY AND GREECE, ASIA MINOR, SYRIA, AND
PALESTINE.

I. Ancient ITALY may be distinguished into two general parts—Gallia Cisalpina to the north, and Italy, primarily so called, to the south.

The several people of Gallia Cisalpina were these :

* LIGURES, TAURINI, SEGUSIANI, SALASSI, LEPONTII, EUGANEI, RHÆTI, CARNI, ISTRI, VENETI; (south of the P-o these) A-NANES, BOII, LINGONES, SENONES; (north of the Po these) LIBICI, LÆVI, INSUBRES, OROBII, CENOMANI.

Italia, primarily so called, or the south parts of Old Italy, comprehending these following countries and people:

† ETRURIA or TYRRHENIA, SABINI, LATIUM, CAMPANIA, PICENTINI, G-RÆCIA MAGUA, ‡ UMBRIA, PICENUM, V-ESTINI,

* Lying in order along the Alps.

† Lying in order on the Mare Inferum.

‡ Lying in order on the Mare Superum.

MARUCICI, FRENTANI, APULIA, *MARSII, PELIGNI, SAMNIUM, HIRPINI.

The Memorial Lines.

CIS = Lig-Tau-Sé-Sa-Lep-Eug-Rhæt-Car-Is, Vén (P)
A-Bo-Ling-Sen;

Lib-Læv-Ins-Oro-Cen. —

IT = Etru-Sab-Lá-Ca-Pi-G, Um-Pí-V-Ma-Fr-Ap,
Mars-PeliSamn-Hirp.

II. Ancient GREECE was usually divided into five general parts, viz. MACEDONIA, THESSALIA, EPIRUS, HELLAS or GRÆCIA, properly so called, and PELOPONNESUS.

The Memorial Line.

GRÆ = MáTh, Epir-HelPel. —

1. PELOPONNESUS was divided into six parts or regions, viz. †ACHAIA, ELIS, MESSENIA, LACONIA, ARGIA or ARGOLIS, ‡ARCADIA.

The Memorial Line.

— PELOP = Ach-Eli-Méss-Lac-Ar-Arcad.

2. EPIRUS contained these people and countries, viz. CHAONES, DRYOPES, THESPROTII, CASSIOPÆI, AMPHILOCHI, ALMENE, MOLOSSI, ACARNANIA.

The Memorial Line.

EP = Chao-Dry, Thesprot-Cass-Amphiloc, Al-Mol-Acarnan.

3. HELLAS, or GRÆCIA PROPRIA (called also Achaia), was divided into eight parts, viz. DORIS, LOCRISEPICNEMIDIA, ÆTOLIA, LOCRISE-ÖZOLÆA, PHOCIS, BÆOTIA, MEGARIS, ATTICA.

The Memorial Line.

GRÆ-PROPRI = Dó-LocrEp, Æto-LocrÖz-Pho-Bæ-Meg-Att.

* In the inland parts.

† Lying in order on the Ionian, Ægean, and Cretan sea.

‡ In the inland.

4. THESSALIA contained these several parts, viz. PELASGIOTIS, ESTIOTIS, THESSALIOTIS, PHTHIOTIS, MAGNESIA.

The Memorial Line.

THESS = PelasEstThéss-Plthi-M. —

5. Some of the more remarkable people and countries of MACEDONIA were, TAULANTII, PÆONES, MYGDONIA, ÆMATHIA, AMPHAXITIS, PIERIA.

The Memorial Line.

— MACE = Taul-Pæo-Mygd-Æmath - AmphPi.

ASIA MINOR comprehended ASIA PROPRIA, BITHYNIA, PONTUS, GALATIA, *CAPPADOCIA:—LYCIA, PAMPHYLIA, CILICIA.

The Memorial Line.

ASM = Asp-Bith-Pó-Ga-Capp: Lyci-Pamphy-Cil. —

ASIA PROPRIA contained PHRYGIA MINOR, MYSIA MINOR, MYSIA MAJOR, ÆOLIS, IONIA, LYDIA, PHRYGIA MAJOR, CARIA, DORIS.

The Memorial Line.

ASP = Phrygimin-Mysimi-m, Æol Ioni-Lyd-Phryma, CarDo.

GALATIA comprehended PONTUS GALATICUS, PAPHLAGONIA, GALATIA PROPRIA, ISAURIA, and part of PISIDIA; the other part of which, with the regions of CARBALIA, was contained in PAMPHYLIA.

The Memorial Line.

— GAL = PonGalaPaphGalap Is-Pis.

SYRIA was divided into four parts: SYRIA PROPRIA, PHŒNICIA, CÆLOSYPRIA, PALESTINA.

PALESTINE was distinguished into GALILÆA, SAMARIA, JUDÆA, PERÆA or Judæa beyond JORDAN, IDUMÆA.

The Memorial Line.

SYR = SyrpPhœn-Cælo-Pal. PAL = GálSamaJudæ-Per Idum.

* Among the several regions of Cappadocia was LYCAONIA.

TABLE XVI.

ANCIENT GALLIA, GERMANIA, IBERIA, BRITANNIA.

1. GALLIA was divided by Augustus into four parts or provinces, viz. Gallia BELGICA, Gallia CELTICA or Lugdunensis, Gallia AQUITANICA, and Gallia NARBONENSIS—GALL=BelCeltAquiNarb

2. The inhabitants of ancient GERMANY were comprehended under four general denominations, viz. INGÆVONES, VANDALI, ISTÆVONES, HERMIONES—GERM=Ing-Vand Ist-Her.

3. IBERIA, or ancient Spain, was distinguished into three general parts, viz. TARRACONENSIS, LUSITANICA, B-ÆTICA—IBERI=TarLuB.

4. BRITANNIA, according to the last division by the Romans, was distinguished into five parts, viz. VALENCIA, MAXIMA CÆSARIENSIS, BRITANNIA SECUNDA, FLAVIA CÆSARIENSIS, BRITANNIA PRIMA—BRIT=ValMax, Britse-Fla, Britprim.

The Memorial Lines.

GALL=BelCeltAquiNarb. GERM=Ing-Vand Ist-Her.
I=TarLuB.

— BRIT=ValMax, Britse-Fla, Britprim.

The Memorial Lines for all the ancient Geography.

EUR=Sca-Fe, Sarm, Cimb-Cod; Ger-S, G-Rhæ-V-
No-Pa-D; Ib-Ita-Pill-MæG-Th.

AS=ScythiSogd, Col-Ib-Alb; Asm-Arm, Sy-Mes-Ass-
Med-Hy-BactArch,

Bab-Sus-Parth-AriDran, Pers-Car-Gedro, NInd-Se-
Sin; Ar-P-Ind.

AF=MauT-Cæs-Numid-AfP-Liby-(Cyr-Mar)-E,
GætGara-NasPsyl;

Libydes = AtlántPhauNig-Nub-Æth; Léucæth-Erem-
Blem.

CIS = Lig-Tau-Sé-Sa-Lep-Eug-Rhæt-Car-Is, Vén (P)
A-Bo-Ling-Sen;

Lib-Læv-Ins-Oro-Cen. —

IT = Etru-Sab-Lá-Ca-Pi-G, Um-Pí-V-Ma-Fr-Ap,
 Mars-PeliSamn-Hirp.
 GRÆ=MáTh, Epir-HelPel. PELOP=Ach-Eli-Méss-
 Lac-Ar-Arcad.
 EP = Chao-Dry, Thesprot-Cass-Amphiloc, Al-Mol-
 Acarnan.
 GRÆ-PROPRI = Dó-LoctrEp, Æto-LoctrOz-Pho-Bœ-
 Meg-Att.
 THESS=PelasEstThéss-Phthi-M. MACE=Taul-Pæo-
 Mygd-Æmath -AmphPi.
 ASM=Asp-Bith-Pó-Ga-Capp: Lyci-Pamphy-Cil. —
 ASP = Phrygimin-Mysimi-m, Æol Ioni-Lyd-Phryma,
 CarDo.
 — GAL=PonGalaPaphGalap Is-Pis.
 SYR = SyrpPhœn-Cœlo-Pal. PAL = GálSamaJudæ-
 Per Idum.
 GAEL=BelCeltAquiNarb. GERM=Ing-Vand Ist-Her.
 I=TarLuB.
 — BRIT=ValMax, Britse-Fla, Britprim.

 TABLE XVII.

REMARKABLE PLACES IN ANCIENT GEOGRAPHY.

ABDERA in <i>Thracia</i>	PYLUS in <i>Messene</i>
BERYTUS in <i>Phœnicia</i>	MARATHON in <i>Attica</i>
HELICON in <i>Phocis</i>	DELPHOS in <i>Phocis</i>
HALICARNASSUS in <i>Doris</i> in	SAMOSATA in <i>Comagene</i>
Asia Minor	DYRRACHIUM in <i>Macedonia</i>
CHERONÆA in <i>Bœotia</i>	THESSALONICA in <i>Amphaxitis</i>
CANBÆ in <i>Pœncetia</i>	NICOMEDIA in <i>Bithynia</i>
ARBELA Assyria	NYSSA in <i>Megaris</i>
GRANICUS river of <i>Phrygia</i>	ACROCERAUNIA m. in <i>Epirus</i>
MÆANDER river of <i>Lydia</i>	CITHÆRON m. in <i>Bœotia</i>
TAGUS river of <i>Lusitania</i>	HYMETTUS m. in <i>Attica</i>
ISSUS promont. of <i>Cilicia</i>	ATHOS m. in <i>Macedonia</i>
PATMOS one of the <i>Sporades</i>	OLYMPUS
Islands	PELION
OLYMPIA in <i>Elis</i>	O-ssa

 } mountains in
Thessalia

MANTinea in <i>Arcadia</i>	DODONE a town of the <i>Molossi</i>
EPIDaurus in <i>Laconia</i>	SPARTA in <i>Laconia</i>
PELLA in <i>Æmathia</i>	ANTIOCHIA in <i>Pisidia</i>
ACTium } in <i>Acarmania</i>	ANTium of the <i>Volsci</i>
AMbracia } in <i>Ionia</i>	AMYCLÆ in <i>Laconia</i>
SMYRNA } in <i>Ionia</i>	ARIMinum in <i>Umbria</i>
EPHesus } in <i>Ionia</i>	CORINth } in <i>Achaia</i>
PERGamus in <i>Mysia</i>	CENCHRÆæ } in <i>Achaia</i>
LAODicea in <i>Caria</i>	ELEUSIS in <i>Megaris</i>
SARDIS } in <i>Lydia</i>	ACERRÆ in <i>Campania</i>
THYATira } in <i>Lydia</i>	CHALCIS in <i>Ætolia</i>
PHILadelphía } in <i>Lydia</i>	CORFINIUM } of the <i>Pe-</i>
SARDICA in <i>Thracia</i>	SULMO } ligni
CHALCEDON in <i>Bithynia</i>	MEMPHIS in <i>Inferior Egypt</i>
CIRTium in <i>Numidia</i>	THEBAIS in <i>Superior Egypt</i>
ILLIBERIS in <i>Hispan. Bætica</i>	MYCENÆ in <i>Argia</i>
ANCYRA in <i>Galatia</i>	PATARA in <i>Lycia</i>
GANGRA in <i>Paphlagonia</i>	CHALYBES a people of <i>Galatia</i>
SIRMium in <i>Pannonia</i>	NEMEA in <i>Argia</i>
NEOCÆSAREA in <i>Cappadocia</i>	ADRAMYTtium in <i>Mysia</i>
PHARSALIA in <i>Thessalia</i>	CNIDUS in <i>Doris</i> in <i>Asia</i>
*PHILIPPI in <i>Thracia</i>	MEDIOLANUM of the <i>Insubres</i>
LEUCTRA in <i>Bæotia</i>	SYRACUSÆ in <i>Sicily</i>
CLUSIUM in <i>Etruria</i>	PATAVIA of the <i>Veneti</i>
BAIÆ in <i>Campania</i>	ILLIUM in <i>Phrygia Minor</i>
TUSCULUM in <i>Latium</i>	CARBALIA in <i>Pamphylia</i>
AQUILEIA of the <i>Carni</i>	LYCAONIA in <i>Cappadocia</i>
EDESSA in <i>Mesopotamia</i>	CYZICIUM in <i>Mysia</i>
RHEGIUM in <i>Calabria</i>	CUMA in <i>Æolis</i>
TOMI in <i>Mæsia</i>	PISIDIA part in <i>Pamphylia</i> ,
DAMASCUS in <i>Cælo Syria</i>	part in <i>Galatia</i>
COLOSSÆ in <i>Phrygia</i>	CURES of the <i>Sabini</i>
SAGUNTUM in <i>Hispania Tar-</i>	LAVINIUM in <i>Latium</i>
raconensis	ARDEA of the <i>Rutuli</i>
BRUNDISIUM in <i>Calabria</i>	PORTUS LIBURNUS in <i>Etruria</i>
COMAGENE a region of <i>Syria</i>	TEGÆA in <i>Arcadia</i>
Propria	

* Why Philippi is said to be in Macedonia, Acts xvi. 12, see Wells's Geography, chap. xv., and Pearce on the Epistles.

LUCANI	} in <i>Oenotria</i>	VOLSCI	} in <i>Latium Novum</i>
BRUTII		AUSONES	
OENOTRIA	} parts of <i>Græcia</i>	SABÆI	} in <i>Arabia Felix</i>
MESSAPIA		MAGNA		SARACEN
DAUNIA	} parts of <i>Apulia</i>	NABATHÆI	} in <i>Arabia Petræa</i>
PEUCETIA		NOMADES		SCENITÆ
ÆQUI	} in <i>Latium Novum</i>	TYRUS	} in <i>Phœnicia</i>
HERNI		SIDON		HIPPO
MUTINA of the <i>Boii</i>			in <i>Numidia</i>
RAVENNA in <i>Umbria</i>			in <i>Cælo-Syria</i>
CALABRI	} in <i>Messapia</i>	NOLA	in <i>Campania</i>
SALENTINI		TARENTUM of the <i>Salentini</i>	

The Memorial Lines.

Abder *Thra*, Bery *Phæn*, Helico *Ph*, Halicár *Dor-A*, Cher-
Bæ,

Can *Peucet*, Arb *Ass*, Gran *Ph*, Mæ *Lydi*, Tág *Lusit*, Is *Cil*,
Pat *Sporad*, Olym *Elis*, Pyl *Mes*, Marath *Attica*, Del *Pho*,
Samósa *Com*, Dyrr *Mac*, Thessal *Amphax*, Nic *Bithy*, Nyss-
Meg,

Acróc *Epir*, Cith *Bæ*, Hym *At*, Ath *Mac*, Ol-Pel-O *Thessal*,
Mant *Arc*, Epidau *Lac*, Pell *Æmath*, Act-Am *Acarnan*,
Smyrn-Eph *Ion*, Perg *Mys*, Laod *Car*, Sard-Thya-Phil *Lyd*,
Sard *Thraci*, Chal *B*, Cirt *Num*, Illib *Hisp-Bæt*, Anc *Gala*,
Gang *Paph*,

Sirm *Pan*, Neocæs *Cap*, Phars *Thessa*, Philip *Thraci*, Leuc *Bæ*,
Clus *Etru*, Bai *Campa*, Tusc *Lat*, Aquilei *Car*, Edess *Mes*,
Rheg *Calabré*, To *Mæs*, Dam *Cæl-S*, Colóss *Phrygi*, Sag *Tur*,
Brund *Cala*, Com *S*, Dod *Mol*, Spart *Lac*, Antóch *Pisid*,
Ant *Vols*,

Amys *Lac*, Arim *Umb*, Cori-Cenchr *Ach*, Eleus *Meg*, Acerr-
Camp,

Chalc *Æt*, Corfini *Pel*, Sulm *Pel*, Memph *infer E*, Thebs *sup E*,
Mycen *Arg*, Pata *Lyc*, Chaly *Gal*, Nem *Arg*, Adramyt *Mys*,
Cni *Dor-A*, Mediol *Ins*, Syracu *Sici*, Pat *Venet*, Il *Phry-n*,
Carbáli *Pamph*, Lyca *Cap*, Cyzi *Mys*, Cum *Æoli*, Pis *Pam-G*,
Cur *Sab*, Lavini *Lat*, Ard *Rut*, Liburn *Etru*, Teg *Arc*,

Luc-Brut *Oenot*, Oeno *Græ-m*, Messap *Græ-m*, Dauni-
Peucét *Ap*,

Æqu-Hern *Lat-n*, *Muti* *Boi*, *Ravn* *Umb*, *Cala-Sal* *Me*, *Vol-*
Aus *Lat-n*,
Sab-Sáracen *Ara-Fel*, *Nabath* *Pet*, *Nom-Scen* *Arab-Des*,
Tyr-Sid *Phœn*, *Hippo* *Num*, *Palm* *Cœl-S*, *Nol* *Campa*,
Tarent *Sal*.

TABLE XVIII.

THE CORRESPONDENCE OF ANCIENT AND PRESENT GEOGRAPHY. *

REGIONS AND PROVINCES.			
Ancient.	Present.	Ancient.	Present.
SARMATIA	{ Poland Great Tartary south part of <i>Russia</i> <i>Livonia</i>	DACIA . . .	{ Moldavia Walachia Transilva.
[Sarm <i>Po-</i> <i>Ta-Rus</i> <i>L</i>]		LIBURNIA . .	Croatia
		ILLYRICUM .	{ Croatia Dalmatia
CIMBRICA Cher- sonesus	{ Jutland Zeeland	NORICUM . .	{ Bavaria Austria
* Insula CODA- Nonia		VINDILICIA .	{ Suabia Bavaria
SCANDINAVIA or B-altia	{ Norway and part of <i>Sweden</i>	RHÆTIA . .	{ Grisons Tyrol and part of Italy
SCYTHIA As. &		HELVETII . .	Switzerland
SOGDIANA	Great Tartary	ALLOBROGES .	Savoy
ACHAIA or Hellas	<i>Livadia</i>	COLCHIS . .	Mingrelia
EPIRUS . . .	<i>Chimæra</i>	IBERIA . .	{ Georgia
THESSALY . .	<i>Janna</i>	ALBANIA . .	
MÆSIA superior .	<i>Servia</i>	GÆTULIA . .	Bildulgerid
MÆSIA inferior .	<i>Bulgaria</i>	AFRICA Pro-	{ Tripoli and Tunis
PELOPONNESUS .	<i>Morea</i>	pria . . .	
THRACIA . . .	<i>Romania</i>	MAURITANIA .	{ Fez and Morocco
PANNONIA . .	<i>Hungary</i>		

* Zealand, Funen, and the adjoining isles had the common name of *Insulæ Æmodes*, and were esteemed isles of ancient Germany, being inhabited by the Teutoni, called also Codani.

Ancient.	Present.	Ancient.	Present
LIBYA Pr. . .	<i>Barca</i>	NUMIDIA Nova	<i>Bildulgerid</i>
NUMIDIA . . .	<i>Algiers</i>	SOGDiana . . .	<i>Zagatay or</i>
LIBYA DE- serta . . .	<i>Zaara</i>		<i>Usbec</i>
NIGRITÆ . . .	<i>Negroland</i>	IBERIA . . .	<i>Spain</i>
TAURICA	{ The penin- sula of Lit- tle <i>Tartary</i>	CANTABRIA . . .	<i>Biscay</i>
CHERSONESUS		ALBION . . .	<i>Britain</i>
GARAMANTES . . .	{ The deserts of <i>Zaara</i>	LIGURES . . .	<i>Genoa</i>
		ARMENIA Maj.	<i>Turcomania</i>
		ARMENIA Min.	<i>Aladulia</i>
		MESOPOTAMIA	<i>Diarbec</i>

The Memorial Lines.

SarmPo-Ta-RusL, CimbJut, CodanZeal, Sca-B Swe-No,
 Scyth-SogT,
 AchLivad, EpiChim, ThessJan, MæsSér-B, PeloMor,
 ThRom,
 PanHung, DaciMol-Wa-T, LiburCro, IllyriCro-Dal,
 NorBavar-Aus, VindSua-B, RhætGrís-Tyr-It, Helv-
 Swit, AllóbSar,
 ColchMing, Iber-AlbGeor, GætulBild, AfricaTrip-Tun,
 MauFéz-Mor, LibyBarc, NumidAlg, Lib-desZara, Nig-
 Neg,
 Taur-ChersTart, GaraZaar, Numi-novBil, SogdZagat,
 IbSpain,
 CantaBis & AlbBrit, LiguGen, ArmTurc-Ala, MespDi.

TABLE XIX.

SEAS, STRAITS, GULFS, ISLANDS, RIVERS, TOWNS.

Ancient.	Present.
Mare Hyrcanum, or CASPIUM	Sea of <i>Sala</i> or <i>Backu</i>
PONTUS EUXINUS	<i>Black</i> or <i>Euxine</i> Sea
ÆGÆAN SEA	<i>Archipelago</i>
PROPONTIS	Sea of <i>Marmora</i>
PALUS MÆOTIS	Sea of <i>Azov</i>
FRETUM GADITANUM	Strait of <i>Gibraltar</i>
BOSPHORUS CIMMERIUS	Strait of <i>Cassa</i>
BOSPHORUS THRACICUS	Strait of <i>Constantinople</i>

Ancient.	Present.
HELLESPONTUS	Strait of the <i>Dardanells</i>
SINUS ADRIATICUS	Gulf of <i>Venice</i>
SINUS SALAMINIUS	Gulf of <i>Engia</i>
SINUS GANGETICUS	Bay of <i>Bengal</i>
SINUS PERSICUS	Gulf of <i>Balsora</i>
SINUS CORINTHIACUS	Gulf of <i>Lepanto</i>
SINUS ARABICUS	<i>Red Sea</i>
FRETUM SICULUM	Straits of <i>Messina</i>
SINUS AMBRACIUS	Gulf of <i>Larta</i>
MARE LIGUSTICUM	Sea of <i>Genoa</i>
SINUS MAGNUS	Bay of <i>Siam</i>
MARE TYRRHENUM	Sea of <i>Tuscany</i>

ISLANDS, RIVERS, AND TOWNS.

Ancient.	Present.	Ancient.	Present.
THULE	<i>Iceland</i>	LEMNOS	<i>Stalimene</i>
ÆEUSUS	<i>Yfrica</i>	GADES	<i>Cadiz</i>
BALEARES {	<i>Majorca</i>	CYRNUUS	<i>Corsica</i>
	<i>Minorca</i>	SALAMIS	<i>Coluri</i>
INS. ÆOLIAE	<i>Lipari Isles</i>	CARPATHUS	<i>Scarpanto</i>
I. FORTUNATAE	<i>Canaries</i>	TRINACRIA	<i>Sicily</i>
* HESPERIDES	<i>C. Verd</i>	CYTHERON	<i>Cerigo</i>
TABROBANA	<i>Ceylon</i>	M. ÆTNA	<i>Gibel</i>
COS	<i>Lango</i>	M. VESUVIUS	<i>Soma</i>
CRETE	<i>Candy</i>	LACUS TRA- {	<i>Lake of</i>
CASSITERIDES	<i>Scilly Isles</i>	simenus {	<i>Perugia</i>
EUBŒA vel {	<i>Negropont</i>	RUBICON	<i>Fiumecino</i>
CHALCIS {		PADUS or {	<i>Po</i>
ITHACA	<i>Ile di Compare</i>	ERIDANUS {	
ÆGINA	<i>Engia</i>	ISTER	<i>Dannbe</i>
CERNE	† <i>Madagascar</i>	BÆTIS	<i>Guadalquiver</i>
LEUCAS	<i>St. Maura</i>	TANAIS	<i>Don</i>
LESBUS	<i>Metelin</i>	RHA	<i>Volga</i>
PATMOS	<i>Palmosa</i>	BORYSTHENES	<i>Nieper</i>
DIOSCORIDES	<i>Zocotra</i>		

* Called also Gorgades.

† Madagascar is supposed by some to be the Menuthias of the ancients.

Ancient.	Present.	Ancient.	Present.
ARGENTORA- tum . . .	} <i>Strasburg</i>	SAGuntum . .	<i>Morvedra</i>
MOGuntium .		CALPe . . .	<i>Gibraltar</i>
COLonia ALLO	} <i>Mentz</i>	COLonia	} <i>Cologne</i>
brogum . . .		AGRIppinæ .	
ROTHomagia .	} <i>Geneva</i>	LUGdunum . .	<i>Lyons</i>
TIGurum . .		LUGdunum	} <i>Leyden</i>
	<i>Rouen</i>	B-atavorum .	
	<i>Zurich</i>		

The Memorial Lines.

Casp*Sala-Back*, Eux*Black*, Æg*Arch*, Prop*Márm*, Mæot-
Zov,

Fret-Gádi*Gib*, Cimm*Caff*, Thraci*Const*, Hellesp*Dar*,
Adrat*Ven*,

Sin-Salam*Eng*, Gan*Beng*, Pers*Bals*, Si-Corínth*Lep*,
Aráb*Red-S*,

Fret-Sicu*Mess*, Amb*Lart*, Ligu*Gen*, Sin-Mag*Sia*, Tyrr-
Tusc.

Thul*Ice*, Ebús*Yv*, Bale*Ma-m*, Æo*Lípare*, Fort*Can*,
Hesp*Verd*, Taprob*Ceyl*, Cos*Lang*, Cret*Candy*, Cassit*Scill*,
Chalc-Eub*Neg*, Itha*Comp*, Ægin*Eng*, Cern*Mada*, Leuc-
Maur,

Lesb*Metelin*, Pat*Palm*, Dioscór*Zoc*, Lem*Stali*, Gad*Cad*,
Cyrn*Corsic*, Sala*Col*, Carp*Scarp*, Trinac*Sici*, Cyth*Cer*,
Ætna*Gi*, Vesuv*Som*, Trasi*Pcr*, Rubi*Fium*, Pad-Erid*Po*.

Ist*Danu*, Bæt*Gúadal*, Tana*Don*, Rha*Volga*, Boryst*Niep*.

Argent*Stras*, Mog*Mentz*, Col-All*Gen*, Rótho*Ro*, Tig*Zur*,
Sag*Morved*, Calp*Gib*, Col-Agrip*Col*, Lug*Lyo*, Lug-B*Leyd*.

N. B. It was thought needless to give more examples, especially of such as now have any likeness or affinity in their ancient names; as *Tagus* Taio, *Sequanus* Seyne, *Rhenus* Rhine, *Garumna* Garonne, *Zacynthus* Zante, *Melita* Malta, &c.

GEOGRAPHIA SACRA.

TABLE XX.

THE PLANTATION OF THE EARTH AFTER THE FLOOD.

AND first, the several countries mentioned in holy Scripture, and denominated from some of the posterity of SHEM, viz.

OPHIR, conjectured to be part of the East Indies, viz. Aurea *Chersonesus* of the ancients—*OphChers*.

HAVILAH, part of *Susiana* and *Caramania*—*HaviSus-Car*.

ELAM, part of *Susiana* and *Persis*—*ElaSus-Pers*.

ASSHUR, or Assyria properly so called, into which Nimrod is said to come and build Nineveh, &c.—*Asshur*.

ARAM, part of *Syria* and *Mesopotamia*—*ArámSy-Mes*.

Land of UZ, Judæa *Peræa* and the adjoining parts of *Arabia Deserta* and *Petræa*—*UzJúp-Arad*.

LUD, or *Lydia* in Asia Minor—*LudLyd*.

The Memorial Lines.

OphChers, *HaviSus-Car*, *ElaSus-Pers*, *ArámSy-Mes*,
Asshur,

UzJúp-Arad, *LudLyd*. —

Countries mentioned in the Scriptures, and denominated from the posterity of JAPHET, (eldest son of Noah,) whose family is supposed to have peopled, besides a considerable part of Asia, all Europe.

MADAI, called by heathen writers *Media*—*Mad*.

GOMER, thought to be *Albania*, on the Euxine Sea—*GomerAlb*.

TOGARMAH, *Cappadocia*—*TogaCap*.

ASHKENAZ, *Phrygia*—*AshkePh*.

TUBAL, *Iberia* in Asia—*TubIbéri*.

MESHECH, the country lying about the Montes *Moschici*, between Colchis and Armenia Major—Meshéch*Mosch*.

MAGOG, the parts of *Scythia* adjoining to the plantations of *Meshech*, Tubal, and Gomer—Mag*Scythi-Mesh*.

JAVAN, ancient *Greece*—Jav*Gree*.

ELISHAH, or the Isles of Elisha, the Isles of the *Archipelago*—Elísh*Arch*.

KITTIM, understood of *Italy*, Dan. xi. 30, and of Macedonia in the book of Maccabees—Kitt*Ita*.

TARSHISH, by Josephus understood to be *Cilicia*, by others Old Spain, by others Carthage—Tarsh*Cil*.

The Memorial Lines.

Mad, Gomer*Alb*, Toga*Cap*, Ashke*Ph*, Tub*Ibéri*, Meshéch*Mosch*,

Mag*Scythi-Mesh*, Jav*Gree*, Elísh*Arch*, Kitt*Ita*, Tarsh*Cil*.

Countries mentioned in Scripture, denominated from the posterity of HAM (youngest son of Noah), whose family peopled Africa, with the adjoining parts of Asia.

Land of CUSH, (commonly rendered *Æthiopia*,) — Cush*Æthiop*,—under which name seems to have been contained most of Arabia, distinguished into several parts, denominated from the posterity of Cush, as,

SHEBA, *Arabia Felix*—Sheb*Ara-f*.

HAVILAH, part of *Arabia Deserta*, next to *Babylonia* — Hav*Ara-d*.

RAAMATH and DEDAN, parts on the *Persian Gulf* — Ra-Déd*Pe-Gu*.

MIZRAIM, or *Ægypt*—Mizr*Æ*.

LUB or LYBIM, that is, *Lybia* properly so called—Lub.

PHUT, the more remote parts of *Libya* largely taken—Phut*Lib*.

Land of CANAAN lying between the river *Jordan* and the *Mediterranean*—Cána*Jor-M*.

Land of HAMATH, north part of *Phœnicia* and adjoining parts of *Syria Propria*—Hamáth*Phœn-S*.

ARVAD, or Arpad, or the Isle Aradus, lying over against *Hamath*—Arv*Hama*.

Land of the PHILISTINES, *Palestine Proper*—Phil*Pal*.

The Memorial Lines.

Cush *Æthiop*, [Sheb *Ara-f*, Hav *Ara-d*, Ra-Déd *Pe-Gu*,]
 Mizr *Æ*,
 Lub, Phut *Lib*, Cána *Jor-M*, Hamáth *Phæn-S*, Arv *Hama*,
 Phil *Pal*.

TABLE XXI.

DIVISION OF THE HOLY LAND.

THE kingdom of JUDAH contained the tribes of Judah and B-enjamin—Ju-B.

The kingdom of ISRAEL contained the tribes of
 A-sher, Nephtali, Zebulon, Issachar, }
 half of MANasseh, DAN, E-phraim, } west of Jordan
 Simeon }
 REUBEN, G-ad, the other half of M-a- }
 nasseh } east of Jordan

The several nations were the CANaanites; the GIR-gashites, the HITTites, the HIVites, the AMorites, the JEBusites, and the P-erizzites.

The Memorial Lines.

ISR = A-NeZe -M, IssMa -G, Dan-E -Réub, Si :
 Ca-Girg-Hit-Hiv, Am-Je-P.

THE DIVISION OF THE HOLY LAND IN THE NEW TESTAMENT COMPARED
 WITH THE DIVISIONS THEREOF AMONG THE TWELVE TRIBES IN THE
 OLD TESTAMENT.

GALilee contained A-sher, Nephtali, Z-ebulon, and Issachar—GAL = A-NeZIss.

SAMaria contained EPHraim, with the half of MANasseh—SAM = Man Eph.

Judæa contained DAN, parts of Simeon and Judah, with B-enjamin—JU = DánSi-Ju-B.

Idumæa contained the south parts of Simeon and J-udah, and some part of the land of E-dom—ID = Si-JE.

PERæa contained R-euben, GAd, and the other half of M-anassch—PER=MGaR.

The Memorial Line.

GAL=A-NeZIss. SAM=ManEph. JU=DánSi-Ju-B.
ID=Si-JE. PER=MGaR.

The land of EDOM bordered on the south of *Judæa*—Edóms*Jud*.

The land of the MOABITES lay on the north-east of *Edom*—Móane*Ed*.

The land of the AMMONITES lay on the north-east of *Moab*—Amne*Moab*.

The ISHMAELITES, MAdianites, and AMalekites lived promiscuously together, and therefore seem to be denoted by the common name of the Mingled People, or *Arabians*, from צָרַב *miscuit*, from whence the Greek appellation of Ἀραβ, or Ἀραβες—Ish-Mad-Am*Arab*.

The Memorial Line.

Edóms*Jud*, Móane*Ed*, Amne*Moab*, Ish-Mad-Am*Arab*.



TABLE XXII.

THE MOST REMARKABLE RIVERS, WITH THE PLACES WHERE THEY RISE, AND THE SEAS INTO WHICH THEY FALL.

IN EUROPE.

The VOLGA, the greatest river in Europe, rises in *Russia*, and falls into the *Caspian Sea*—Vol*Rus-Ca*.

The DANUBE rises in *Suabia*, and falls into the *Euxine Sea*—Dan*Suab-Eux*.

The RHINE rises in the country of the *Grisons*, and falls into the *German Ocean*--Rhin*Gris-Ger-O*.

The VISTULA, or Wesel, rises in *Poland*, and falls into the *Baltic*—Vist*Po-Ba*.

The NIEPER rises in *Poland*, and falls into the *Euxine Sea*—Nie*P-Eux*.

The DWINA rises in *Russia*, and falls into the gulf of the Northern Ocean, called the *White Sea*—*DwinRus-Whi*.

The TAIŌ in *Spain* falls into the *Atlantic Ocean*—*TaiSp-Atl-Oc*.

The IBERUS, or Ebro, in Spain . . . } fall into the
The RHODANUS, or Rhone, in France } *Mediterranean*
—Ib-RhodMed }

The ELBE in Germany falls into the *German Ocean*—*ElbGer-Oc*.

The ODER in Germany falls into the *Baltic*—*OdBalt*.

IN ASIA.

T-igris and EUPHRATES rise in *Armenia Major*, and, having joined streams on the south-east of *Mesopotamia*, fall into the *Sinus Persicus*—*T-EuphArm-SiP*.

JORDAN rising in the border of *Nephtali*, and passing through the Lake of Gennesaret, falls into the *Salt Sea*—*JordNeph-Salt*.

GANGES in *India* falls into the Bay of *Bengal* *GánI-Beng*.

IN AFRICA.

The NILE, running through the middle of *Egypt*, falls into the *Mediterranean*—*NilMedi*.

The SENEGAL runs through *Negroland* into the *Atlantic Ocean*—*SénAt*.

The Memorial Lines.

VolRus-Ca, *DanSuab-Eux*, *RhinGris-Ger-O*, *VistPo-Ba*,
NieP-Eux,

DwinRus-Whi, *TaiSp-Atl-Oc*, *Ib-RhodMed*, *ElbGer-Oc*,
OdBalt;

T-EuphArm-SiP, *GánI-Beng*, *JordNeph-Salt*; *NilMedi*,
SénAt.

ASTRONOMICA.

SECTION IV.

THE APPLICATION OF THIS ART TO ASTRONOMY AND CHRONOLOGY.

THE *technical* endings affixed to the beginnings of the names of the planets, represent the number of miles of their diameters, distances, magnitudes, &c. according to the general key. Where the beginning of the word is *technical*, it is composed of the syllables or letters distinguished in the tables by small capitals.

TABLE I.

THE D-IAMETERS, &c. OF THE PLANETS IN ENGLISH MILES,
ACCORDING TO DR. DERHAM'S ASTRO-THEOLOGY.

	English Miles.
Luna—Lu-ddapu	2,175
MERCURY—Mercú-depok	2,748
MARS—Mar-dokpu	4,875
VENUS—Ve-doneip	4,987
TERRÆ DIAMETER—Ter-diapousoi,k	7,967·8
SATURN—Sa-dní-olu	93,451
JUPITER—Ju-daty-sli	130,653
SOLIS DIAMETER—Sol-diked-áfei	822,148

The D-iameters of their ORBITS.

SATURN—D-orb-Sátasob-les-teis	1,641,526,336
JUPITER—Ju-rbkoúl-atoth	895,134,004

	English Miles.
Mars—Ma-rbese-deid-naz	262,282,910
TERRÆ—D-orb-Terboid-áze-poul	172,102,795
MERCURY—Me-rbsau-sebth	66,621,000
VENUS—Ve-rbbef-okoi-baf	124,487,114
LUNA—D-orb-Lunopou-nyl	479,905
SATURNI ANNULI DIAM. or the diameter of	
Saturn's ring—Sat-ann-didáz-daul	210,265
—Ejusdem LATITUDO, or the breadth of	
Saturn's ring— —latidoú-eg	29,200
TERRÆ SUPERFICIES, or the superficial con-	
tent of the earth—Ter-superann-fof-ezau	199,444,206
—Ejusdem DIAMETER— —diapousoi,k	7,967.8
—Ejusdem ORBITÆ PERIMETER— —per-	
mufy-skau-del	540,686,225

THE MAGNITUDES OR SOLID CONTENTS IN CUBIC MILES OF THE
LARGER PLANETS.

MAGNITUDO.

	Cubic Miles.
TERRÆ—Ter-magnitéso-klaum	264,856,000,000
SOLIS — Mag-Sólisēoú-z-noia	
mil-mil	290,971,000,000,000,000
JOVIS — Mag-Jovuez-záb-czym	920,011,200,000,000
SATURNI — Sat-magnitoép-dak	
& ízym	427,218,300,000,000

1. The Ambit or Circumference.

	English Miles.
JOVIS—Am-Jovisipou-zot	379,043
TERRÆ—Am-Tel-yib	25,031
SOLIS—Am-Sole-leid-koit	2,582,873

The Memorial Lines.

Lu-ddapu, Mercú-depok, Mar-dokpu, Ter-diapousoi,k,
Ju-daty-sli, Ve-doncep, Sa-dní-ola, Sol-diked-áfei.

D-orb-Sátasob-les-teis, Ju-rbkoúl-atoth, Ma-rbese-deid-naz,
D-orb-Terboïd-áze-poul, Me-rbsan-sebth, Ve-rbbef-okoí baf,
Sat-anp-didáz-daul, —latiáou-eg, D-orb-Lunopóu-nyl,
Ter-superann-fof-ezau, —diapousoi,k, —permufy-skau-del,
Ter-magnitéso-klaum, Mag-Sólisëoúz-noia-mil-mil,
Mag-Jovnez-záb-eyzm, Sat-magnitoép-dak & ízym.
Am-Jovisipóu-zot, Am-Tel-yib, Am-Sole-leid-koit.

TABLE II.

THE DIAMETERS, &c. OF THE PLANETS, ACCORDING TO
MR. WHISTON.*

Luna—Lu-ddedi	2,223	} English Miles of 5000 Paris feet.
MERCURY—Mércú-depap	2,717	
MARS—Mar-dekbau	2,816	
TERRA—Ter-dia kéze	8,202	
JUPITER—Ju-dle-led	52,522	
VENUS—Ve-donob	4,941	
SATURN—Sa-dot-nel	43,925	}
SOL—Sol-difouf-ázy	494,100	

2. Their DISTANCES from the Sun.†

	English Miles.
SATURN—Dista-Satlái-lozth	513.540,000
MARS—Dist-Márke-dodth	82.242,000
MERCURY—Dist-Merez-ouleth	20.952,000
JUPITER—Jupideiz-uketh	280.582,000

* Theory of the Earth, page 31, &c.

† The distances of the planets from the Sun, according to Dr. Derham, are as follow :

SATURN—Dist-Satkez-paút-ani	820.763,193
MARS—Dist-Marbib-bob-olu	131.141,455
MERCURY—Dist-Merit-ibz-ug	33.310,500
JUPITER—Dist-Jupifop-usoith	447.567,000
TERRA—Dist-Terkau-sub-touk	86.051,398
VENUS—Dist-Vesc-dot-lup	62.243,557

	English Miles
TERRA—Dis-Terlom	54.000,000
VENUS—Dista-Vetou-znauth	39.096,000

3. The QUANTITY of matter in the heavenly bodies is in the proportions following :

TERRA—Quan-Tera	1
LUNA—Quan-Lun, <i>res</i>	0 $\frac{1}{10}$
JUPITER—Quan-Jupsy	60.
SATURN—Quan-Saturek, <i>ro</i>	28 $\frac{1}{2}$
SOL—Quan-Solsau- <i>sny</i>	66,690

4. The weight (PONDUS) of bodies on the surface of

SATURN—Pon-Sáturuts	536
LUNA—P-Lunsiz	630
JUPITER—Pon-Jukzo, <i>re</i>	804 $\frac{1}{2}$
TERRA—Pon-Teraduk, <i>re</i>	1,258 $\frac{1}{2}$
SOL—Pon-Solazth	10,000

5. The DENSITIES of the same.

SOL—Den-Solag	100
LUNA—Den-Lunoig	700
TERRA—Den-Terteip	387
SATURN—Den-Sasy	60
JUPITER—Den-Jups	76

N. B. Mr. Whiston supposes the Sun's parallax to be 32". Dr. Derham (with Cassini) 9 sec. and a half.

The Memorial Lines.

1. Lu-dledi, Mércú-depap, Mar-dekbau, Ter-diakéze,
Ju-dle-led, Ve-donob, Sa-dot-nel, Sol-difouf-ázy.

2. Dista-Satlái-lozth, Dist-Márke-dodth, Dist-Merez-
ouleth,
Dist-Jupideiz-uketh, Dis-Terlom, Dista-Vetou-znauth.

3. Quan-Tera, Quan-Lun, *res*, Quan-Jupsy, Quan-Saturek, *ro*,
Quan-Solsau-*sn*y.
4. Pon-Sáturuts, P-Lunsiz, Pon-Jukzo, *re*, Pon-Ta-
aduk, *re*,
Pon-Solazth.
5. Den-Solag, Den-Lunoig, Den-Terteip, Den-Sasy,
Den-Jups.



TABLE III.

THE PERIODICAL TIMES OF THE R-EVOLUTIONS OF EACH
PLANET ABOUT THE SUN ARE AS FOLLOW :

MERCURY in	88	} days, {	3 months.
VENUS	224		7½ months.
MARS	687		2 years.
JUPITER	4,333		12 years.
SATURN	10,759		30 years.

The Memorial Lines.

Merc-reik, Sat-razpun, Mars-raukoi, Ven-redo, Jup-rottt,
Merc-revo-ment, Ve-r-mep-h, Mars-r-and, Jup-r-anbe,
Sat-r-anty.

N. B. Men *vel* me *Mensibus*, an *Annis*, *h* half.

The DISTANCE of the Earth from the Sun being divided
into ten parts, or Decimals, the distance of MERCURY from
the Sun will be as 4 of them, of VENUS as 6, of MARS
as 15, of JUPITER as 52, of SATURN as 95.

The Memorial Line.

Ter-distaz, Méro, Vens, Marsal, Jupiterle, Saturnoul.

The Sun is distant from the Earth 21,600 SEMIdiameter of the Earth=86.051,398 miles.

The Moon $60\frac{1}{2}$ semidiameters=239,952 miles

The Memorial Lines.

Dist-Sol-sémida-syz=*kau-zub-touk*. —

—Dista-Lun-semsy,ro=*din-nud*.

The motion of the Sun round its axis is performed in 25 days and 6 hours—Sol-xdu,ro. The motion of Jupiter round its axis is performed in 9 hours 56 minutes—Ju-x-n,us; that of the Earth in 24 hours; so that the motion of the Sun round its axis is at the rate of 4,262 miles an hour—Sol-mfese; the motion of Jupiter round its axis 38,159 miles an hour—Ju-mteibun; the motion of the Earth round its axis is 1,043 miles an hour—Ter-mázfi.

The Memorial Line.

Sol-mfese, Ju-mteibun, Ter-mázfi, Sól-xdu,ro, Ju-xn,us.

The apparent diameter of the Sun in summer (ÆSTATE Solis Diameter) is 31 M-inutes 40 S-econds—Æstat-So-di-míb-soz.

In winter (HYEME) 32 M-inutes 47 S-econds —
—bye-míd-sop.

If the Sun is supposed to go round the Earth, its diurnal motion will be 22.523,366 M-iles in an Hour—Sol-m-hode-lek-taus.

The Memorial Line.

Æstat-So-di-míb-soz, —bye-míd-sop; Sol-m-hode-lek-taus.

The three COMets, whose periods were thought to have been discovered. Derham's Astro-Theology, p. 56.

That which appeared $\left\{ \begin{array}{l} 1682 \\ 1661 \\ 1680 \end{array} \right\}$ calculated to perform its revolution in $\left\{ \begin{array}{l} 75 \\ 129 \\ 575 \end{array} \right\}$ and to appear again $\left\{ \begin{array}{l} 1758 \\ 1789 \\ 2255 \end{array} \right\}$

Comske-pu sáub-adou sky-loil: puk pein & cēlu.

The Memorial Lines for all the Table.

Merc-reik, Sat-razpun, Mars-raukoi, Ven-redo, Jup-rottt,
Merc-revo-ment, Ve-r-mep-h, Mars-r-and, Jup-r-anbe,
Sat-r-anty.

Ter-distaz, Méro, Vens, Marsal, Jupiterle, Saturnoul.

Dist-Sol-sémida-syz=*kau-zub-touk*, Lunsy,ro=*din-aud*.

Sol-mfese, Ju-mteibun, Ter-mázfi, Sól-xdu,ro, Ju-xn,us.

Æstat-So-di-míb-soz, —hye-mid-sop; Sol-m-hode-lek-
taus.

Comske-pu saúb-adou sky-loil: puk pein & cēlu.

TABLE IV.

CHRONOLOGICAL NOTES.

	d.	h.	m.	s.	th.
Solar month (MENSIS SOLARIS) consists of—Men-Solarty-by-dou .	30	10	29	0	0
Lunar SYNODAL month—Synodén-be-ff-t	29	12	44	3	0
Lunar PERIODICAL month—Men-peridoi-p-ot	27	7	43	0	0
The cycle of the Moon less (CYCLUS LUNARIS MINOR) than 19 Julian years—Cyc-Lu-min-ha-doi-ta-ll	0	1	27	31	55
[This difference arises to a whole day, and consequently throws the new moons back a whole day in 312 years (ANNIS)—Anntad.]					
The tropical or natural solar year less than the Julian (ANNUS TROPICUS MINOR JULIANO) 11 Minutes—Trop-min-juli-mab; and consequently the equinoxes happen a day sooner in 130 years—biz. .	0	0	11	0	0
The lunar year (LUNARIS ANNUS)—Lun-áni-lo-hei-mok	354	8	48	0	0

	d.	h.	m.	s.	th.
The EPACT— <i>Epacaz-da-b</i> . . .	10	21	1	0	0
The solar year (SOLARIS ANNUS)— <i>Sól-anisú-l-on</i>	365	5	49	0	0
Between the VERNAL and AUTUM- nal equinox -- Vern-autaks-hak- miz	186	18	30	0	0
Between the AUTUMNAL and VER- nal equinox — Autum-vernboík- ab-an	178	11	19	0	0

The METONIC period was invented by Meto, in the year before Christ 430, consisting of 19 years—*Metfiz-bou*.

The CALIPPIC period was invented by Calippus, in the year before Christ 330, consisting of 76 years—*Calipitz-ois*.

The DIONYSIAN period was invented by Dionysius Exiguus, An. Dom. 527, consisting of 532 years—*Diolép-lid*.

The JULIAN period was invented by Joseph SCALIGER, consisting of 7,980 years—*Júl-Scalipóuky*.

The vulgar year of Christ was in the fourth of the indiction, the tenth in the cycle of the Sun, the second of the cycle of the Moon.

Indic. erat quarto, decimo Sol, Luna secundo.

TO FIND THE YEAR OF THE JULIAN PERIOD, THE YEARS OF
THE OTHER CYCLES BEING GIVEN.

Multiply the cycle of the Sun into 4845—*Sol in okol*.

——the cycle of the Moon into 4200—*Lunfeg*.

——the INDICITION into 6916—*Indicsnas*.

Divide the PRODUCT by 7980—*Dív-prodúpouky*.

The remainder is the year.

The Sunday letters which begin every month are frequently known by the two English verses,

At Dover dwells George Brown, &c. (see p. 132.)

But perhaps they may be more readily remembered by the following line, which lays the reader under no necessity of counting the order of the words before he can tell which month they answer to, every month ending with the letter which belongs to the first day of it.

*Ja Fd Mád Aprig Mayb June Julg Aúc Sef Octa
Novéd Def.*

MARCH, MAY, JULY, October, have Nones on the 7th day, and the Ides on the 15th—Mar-Ma-Jul-Oc=Nop-Idal. The rest (CÆTERI) on the 5th and 13th—Cætl-at.

APRIL, JUNE, SEPTEMBER, and NOVEMBER, have thirty (TRIGINTA) days—Ap-Jún-Se-No=trigint.

The Memorial Line.

Mar-Má-Jul-Oc=Nop-Idal, Cætl-at: Ap-Jún-Se-No=trigint.

In a year (ANNO) are 365 Days, 8765 Hours, 525,949 Minutes, 31,556,937 SECONDS.

An=Ditaul=Horeipaul=Minlel-non=Secta-lus-outoi.

The motion of the firmament, or fixed stars, is 50" in a year, or a degree in 72 years. According to which rate the motion (called the PLATONIC year) is accomplished in 25,920 years—An-Plato=duncz.

The twelve signs: ARIES, TAURUS, GEMINI, CANCER, LEO, VIRGO, LIBRA, SCORPIO, SAGITTARIUS, CAPRICORN, AQUARIUS, PISCES.

Ar-Ta-Ge, Can-Leo-Vir, Lib-Scór-Sagi, Capric-Aquár-Pis.

The Memorial Lines for all the Table.

Men-Solarty-by-dou, Synodén-be-ff-t, Men-peridoi-p-ot,
Cyc-Lu-min-ha-doi-ta-ll, [Anntad], Trop-min-juli-mab,
biz,

Lun-ánuo-hei-mok, Epacaz-da-b, Sól-anisú-l-on,
 Vern-autaks-hak-miz, Autum-vernboík-ab-an. —
 Metfiz-bou, Calipitz-ois, Diolép-lid, Júl-Sealipóuky.
Indic. erat quarto, decimo Sol, Luna secundo.

Sol in okol, Lunfeg, Indiesnas, Div-produpouky.

Ja Fd Mád Aprig Mayb June Julg Aúc Šef Octa
 Novéd Def.

Mar-Má-Jul-Oc=Nop-Idal, Cætl-at: Ap-Jún-Se-No
 =trigint.

An=Ditaul=Horecipaul=Minlel-non=Secta-lus-óutoi.

An-Plato=dunez.

Ar-Ta-Ge, Can-Leovir, Lib-Scór-Sagi, Capric-Aquár-
 Pis.

PONDERA, NUMMI, MENSURÆ.

SECTION V.

THE APPLICATION OF THIS ART TO COINS, WEIGHTS, AND MEASURES.

THE beginning of the words is composed of the initial letters; thus At-ta stands for ATTIC Talent; He-t for HEBREW T-alent; A-d for A-TTIC D-rachm; Al-d for ALEXANDRIAN D-rachm; He-to for HEBREW Talent of gold (He-t standing for HEBREW T-alent, as before, and o for Or, or gold); Ro-l for ROMAN L-ibra. Den for DENARIUS, Shek for SHEKEL, Gre-f for GRECIAN F-oot, He-c for HEBREW C-ubit, Ro-fsq for ROMAN F-oot square, &c.

The *italic* endings of the words represent the number of pounds, shillings, and pence, which are separated from each other by *hyphens*, or else signified by the roman letters l. s. d. The double lines denote equality: thus A-m=drag = *t-ei-n*, signifies that an A-TTIC M-ina, which is equal to 100 Drachms, was 3 pounds 8 shillings and 9 pence. The letters, though separated, are to be pronounced together; as *t-ei-n*, *tein*. The reader is to be reminded here that *re* signifies $\frac{1}{2}$, *ro* $\frac{1}{4}$, &c. according to the general rule, page 4. But *note*, that instead of the fraction *re*, the letter *h* is sometimes used for Half, as *oikbe-h*=7,812 $\frac{1}{2}$, sc. 7,812 pounds 10 shillings.

TABLE I.

HEBREW, ATTIC, BABYLONISH, ALEXANDRIAN, AND ROMAN
MONEY.*

	l.	s.	d.
An Attic Talent=60 M-inas—At-ta= mauz=e ^z áu-su	206	5	0
An A-ttic M-ina=100 Drachms—A-m= drag=t-ei-n	3	8	9
A Hebrew T-alent = 50 Minas = 3000 Shekels—Hé-t=mily=shíth=fuz . .	450	0	0
A Hebrew M-ina=60 Shekels—He-m= shauz=lou	9	0	0
A Babylonian T-alent—Ba-t=eó ^z -be-s .	240	12	6
A Babylonian T-alent of Gold—Ba-to= teilz	3850	0	0
An A-ttic T-alent of Gold—A-to=tig .	3300	0	0
A Hebrew T-alent of Gold—He-to=peg .	7200	0	0
An A-ttic D-rachm—A-d=dei,ro . . .	0	0	8 $\frac{1}{4}$
A Hebrew D-rachm—He-d=dou . . .	0	0	9
A Roman L-ibra=96 D-enarii—Ro-l= dous=li	3	0	0
† A Roman Talent=72 Libræ—Róm-ta= liboid=das	216	0	0
An Alexandrian DRACHM—Al-drach= sa-ds	0	1	6
An Italic Mina—Ita-mí=lt	3	0	0
A SHEKEL=2 BEKAS—Shek=béd=si . .	0	3	0
A Roman D-enarius=4 Sesterces—Ró-d =seso=doi, re	0	0	7 $\frac{1}{2}$
A Sesterce, $\frac{1}{4}$ of a Denarius, <i>sc.</i> LLS. (<i>vulgo</i> HS.) <i>duo asses cum semisse</i> — Ses=da-fi, re, a penny three farthings and half a farthing	0	0	1 $\frac{3}{4}$

* See the Preface to Dr. Prideaux's *Connexion*.

† Others make a Roman Talent=6000 D-enarii=24 Sester-
tiums=187*l.* 10*s.*—Tal=Dauth=Sésdo=laeip-h.

	l.	s.	d.
Sestertium, or 1000 S-esterces*—Sath =			
<i>p-as-t</i>	7	16	3
Decem Sestertium, 10,000 Sesterces—Ses-			
<i>byth=pei-d-s</i>	78	2	6
Decies Sestertium, or 1,000,000 SESTERCES			
—Sesteram= <i>oikbe-h</i>	7812	10	0

DENARIUS (7½d.)=	2	VICTORIATI—Vid
	4	SESTERTII—Sef
	6	OBOLI—Obs
	10	LIBELLÆ—Líbaz
	20	SEMBELLÆ—Semdy
	40	TERUNCII—Terunfy

Den (doi,re)=Vid=Sef=Obs=Líbaz=Semdy=Terunfy.

The Memorial Lines.

At-ta=manz=ezáu-su, A-m=drag=t-ei-n, Hé-t=mily
=shíth=fuz,

He-m=shauz=lou, Ba-t=eóz-be-s, Ba-to=teilz, A-to=
tig, He-to=pegque,

A-d=dei,ro, He-d=dou, Ro-l=dous-li, Róm-ta=liboid-
das,

Al-drach=sa-ds, Ita-mí=lt, Shek=béd=si, Ró-d=
seso=doi,re,

Ses=da-fi,re, Sath=p-as-t, Sesbyth=pei-d-s, Sesteram
=oikbe-h,

Den (doi,re)=Vid=Sef=Obs=Líbaz=Semdy=Terunfy.

* Dr. Arbuthnot makes the Sesterce a penny three farthings, and three-fourths of a farthing—Ses=da-fi,ro; according to which a S-estertium, or 1000 Sesterces, will be 8l. 1s. 5½d.—Sath=k-a-l-h; Decies Sestertium, or 1,000,000 of Sesterces = 8072l. 18s. 4d.—Sestám=kype-sak-do.

Tal=Dauth=Sésdo=laeip-h, Sath=k-a-l-h, Sestám=kype-sak-do.

TABLE II.

MEASURES OF LENGTH.

THE method observed in the following tables is, first, to give the ancient measures, weights, &c. in the proportions which they bear to each other; and then the proportions which they bear to those of our own country. To which I subjoin some tables, by which the reader will be enabled to make any calculations of this kind with the utmost ease and readiness.

ENGLISH MEASURES OF LENGTH.

$$\text{English Mile} = \left\{ \begin{array}{l} 8 \text{ Furlongs—Furk} \\ 320 \text{ P-oles—Pidz} \\ 1,760 \text{ Yards—Yarapauz} \\ 5,280 \text{ Feet—Fudeiz} \\ 63,360 \text{ Inches—Inautisy} \\ 190,080 \text{ Barley corns—Banzyeiz} \end{array} \right.$$

$$\text{Mil} = \text{Furk} = \text{Pidz} = \text{Yarapauz} = \text{Fudeiz} = \text{Inautisy} = \text{Banzyeiz}.$$

$$\begin{array}{ll} \text{Mile (=8 furlongs)} & = 5280 \text{—Mil=Fudeiz.} \\ \text{Furlong (=40 poles)} & = 660 \text{—Fur=Fsauz.} \\ \text{Pole (=5}\frac{1}{2} \text{ yards)} & = 16\frac{1}{2} \text{—Pol=Fas,re.} \\ \text{Cubit (=2 spans)} & = 1\frac{1}{2} \text{—Cub=Fa,re.} \\ \text{Fathom (=2 yards)} & = 6 \text{—Fat=Fau.} \end{array}$$

$$\text{Mil} = \text{Fudeiz}, \quad \text{Fur} = \text{Fsauz}, \quad \text{Pol} = \text{Fas,re}, \quad \text{Cub} = \text{Fa,re} \\ \text{Fat} = \text{Fau}.$$

GRECIAN MEASURES OF LENGTH.

$$\text{Μίλιον} = \left\{ \begin{array}{l} 8 \text{ Στάδια—Στάβ} \\ 800 \text{ Ὀργυαὶ—Ὀργεῖ} \\ 4800 \text{ Πόδες—Πόδfeig} \end{array} \right.$$

$$\text{Πηχ-υς} = 2 \text{ Σπιθαμ-αὶ.}$$

$$\text{Ὅμις} = 4 \text{ Δῶπ-α} = 16 \text{ Δάκτυλ-οι.}$$

Μίλ = Στάκ = Ὀρειγ = Πόδfeig. Πῆχ = Σπιθαμε. Ποῦς =
Δῶρο = Δάκτας.

Μίλ-ιον (=8 Στάδια) = 4800— Μίλ=Πόδfeig
* Στάδι-ον (=100 Ὀργυιαὶ = 600— Στάδι=Παυγ
Ὀργ-υιαὶ (=4 Πήχεις) = 6— Ὀργ=Παυ

† Δάκ-τυλοι.
Πῆχ-υς (=2 Σπιθαμαὶ) = 24— Πῆχ=Δef
Πυγῶν (=2 Λίχαι) = 20— Πυγῶν=Δez
Πυγ-μὴ (=1½ Σπιθαμὴ) = 18— Πυγ=Δak
‡ Ποῦς (=4 Δῶρα) = 16— Ποῦς=Δάκτας
Σπιθα-μὴ (=3 Λῶρα) = 12— Σπιθα=Δad
Ὀρθ-όδωρον = 11— Ὀρθ=Δab
Λίχ-ας = 10— Λίχ=Δάκby
§ Δῶ-ρον = 4— Δῶ=Δάκτο

Στάδι = Παυγ & Ὀργ = Παυ : Πῆχ = Δef, Πυγ = Δakque
Πυγῶν=Δez,
Ποῦς = Δάκτας, Σπιθα = Δad, Ὀρθ = Δab, Λίχ = Δάκby,
Δῶ=Δάκτο.

* Called also Ἀλδς, from whence came Δίαυλος, a space of two stadia.

+ The Grecian measures, from which the Romans borrowed theirs, were commonly taken from the members of a human body. Δάκτυλο, a finger's breadth; Δῶρον, a hand's breadth, or four fingers; Λίχας, from the thumb to the middle finger; Ὀρθόδωρον, the length of the hand, from the upper part to the extremity of the longest finger; Σπιθαμή, the length of the hand extended, between the thumb and the little finger; Ποῦς, the foot=four hands' breadth; Πῆχυς, from the elbow to the extremity of the fingers; Πυγῶν, from the elbow to the second joint of the fingers, or a cubit with the fingers inflected; Πυγμὴ, from the elbow, with the fingers quite clasped; Ὀργυιαὶ, from the extremity of one middle finger to the extremity of the other, the arms being extended.

‡ The Grecian foot was also, like the Roman, divided into 12 Οὔγγαι or inches.

§ Δῶρον, the palm, so called, because gifts are made with the hand: called also Δοχμή, from δέχομαι, to receive, Δακτυλοδόχμη. & Παλαιστή.

ROMAN MEASURES OF LENGTH.

$$\begin{aligned} \text{MILLIARE} &= \begin{cases} 8 \text{ STADIA—Stak} \\ 1000 \text{ P-assus—Path} \\ 4000 \text{ PALMIPEDes—Palmpoth} \\ 5000 \text{ P-edes—Puth} \end{cases} \\ \text{PES} &= \begin{cases} 4 \text{ PALMI MINORES—Pal-mino} \\ 12 \text{ UNCIAE—Uncad} \\ 16 \text{ DIGITI—Digitas} \end{cases} \end{aligned}$$

Mil=Stak=Path=Palmpoth. Pes=Pal-mino=Digitas
=Uncad.

$$\begin{aligned} \text{MILLIARE} (=8 \text{ stadia}) &= \begin{matrix} \text{P-edes.} \\ 5000—\text{Mil-rom}=\text{Puth} \end{matrix} \\ \text{STADIUM} (=125 \text{ passus}) &= 625—\text{Stadi}=\text{Psel} \\ \text{PASSUS} (=4 \text{ palmipedes}) &= 5—\text{Pass}=\text{Pu} \end{aligned}$$

$$\begin{aligned} \dagger \text{CUBITUS} (=1\frac{1}{2} \text{ pes}) &= \begin{matrix} \text{DIGITI.*} \\ 24—\text{Cub}=\text{Digitef} \end{matrix} \\ \text{PALMIPES} (=5 \text{ palmi}) &= 20—\text{Palmíp}=\text{Déz} \\ \dagger \text{PES} (=4 \text{ palmi}) &= 16—\text{Pes}=\text{Das} \\ \S \text{PALMUS} (=3 \text{ unciaë}) &= 4—\text{Palm}=\text{Do} \\ \parallel \text{UNCIA} &= 1\frac{1}{3}—\text{Un}=\text{Da,re} \end{aligned}$$

Mil-rom=Puth, Stadi=Psel, Pass=Pu: Cub=Digitef,
Palmíp=Déz,
Pes=Das, Palm=Do, Un=Da,re. —

JEWISH MEASURES OF LENGTH.

$$\begin{aligned} \text{MILE} &= \begin{cases} 2 \text{ SABBATH-days' journeys—Sábate} \\ 10 \text{ STADIA—Staz} \\ 4000 \text{ CUBITS—Cubitoth} \end{cases} \\ \text{CUBIT} &= \begin{cases} 2 \text{ SPANS the greater} \\ 3 \text{ SPANS the less} \\ 6 \text{ PALMS—Palmau} \\ 24 \text{ DIGITS—Digitef} \end{cases} \quad \left. \vphantom{\begin{matrix} 2 \text{ SPANS the greater} \\ 3 \text{ SPANS the less} \end{matrix}} \right\} \text{—Spanë-i} \end{aligned}$$

* Some divide the *Digitus* into 4 *Grana*.

† Some use *Ulna* for *Cubitus*. Pliny takes them for different measures; his *Ulna* answers to the Greek *Ὀργυῖα*.

‡ *Pes* was divided, as the *As*, into 12 parts; hence *Dextans* = 10 inches, *Dodrans* = 9 inches, &c.

§ Called *Palmus minor*, to distinguish it from a greater, which some authors make equal to 12 digits.

|| Called sometimes *Pollex*.

Cub=Span*ë*-i=Palmau=Digit*ef*. Mil=Sabate=Staz=
Coth.

	CUBITS.
Eastern MILE (=10 stadia)	= 4000—Mil=Coth
STADIUM	= 400—Stad=Cubitog
*SCHÆNUS, or <i>Chebal</i>	= 80—Schœn= <i>eiz</i>
ARABIAN POLE	= 3—Ara-pol= <i>k</i>
EZEKIEL'S REED, or <i>Kaneh</i>	= 6—Eze-ree= <i>s</i>
FATHOM	= 4—Fath= <i>o</i>

	DIGITS.
CUBIT, or <i>Ammah</i>	= 24—Cub=Digit <i>ef</i>
†SPAN, or <i>Zereth</i>	= 12—Span= <i>Dad</i>
PALM, or <i>Tophach</i>	= 4—Palm= <i>Do</i>

— Mil=Coth,

Stad = Cubitog, Schœn = *eiz*, Ara-pol = *k*, Eze-ree = *s*,
Fath=*o*: Span=*Dad*,
Cub=Digit*ef*, Palm-Do: Para=Milt. —

N. B. The PARASANG is a Persian measure, consisting of 30 stadia=3 MILES—Para=Milt.

A day's journey is an uncertain measure, but amongst the Jews was generally reckoned 24 miles.

The Memorial Lines.

Mil = Furk = Pidz = Yrapauz = Fudeiz = Inautisy =
Banzyeiz.

Mil = Fudeiz, Fur = Fsauz, Pol = Fas, *re*, Cub = Fa, *re*,
Fat = Fau.

Μιλ=Στάκ='Opeig=Hóðfeig. Πῆχ=Σπιθαμ*ε*. Ποῦς=Δῶρο
=Δάκρας,

Στάδι=Παυ*g* & 'Ooγ=Παυ: Πῆχ=Δ*ef*, Πυγ=Δ*ak*que Πυγών
=Δ*ez*,

Ποῦς=Δάκρας, Σπιθα=Δ*ad*, 'Ορθ=Δ*ab*, Λιχ=Δάκ*by*, Δῶ=
Δάκ*ro*.

Mil=Stak=Path=Palmpoth, Pes=Pal-mino=Digitas=
Uncad.

* Called al*í*, Pathil.

† There is likewise another word, Gomed, which the LXX.
render Σπιθαμή.

Mil-rom=*Puth*, Stadi=*Psel*, Pass=*Pu*: Cub=*Digitef*,
 Palmíp=*Dez*,
 Pes=*Das*, Palm=*Do*, Un=*Da, re*. —
 Cub=*Spanë-i*=*Palmau*=*Digitef*. Mil=*Sábate*=*Staz*=
Coth.

—Mil=*Coth*,

Stad = *Cubitog*, Schoen = *eiz*, Ara-pol = *k*, Eze-ree = *s*,
 Fath=*o*: Span=*Dad*,
 Cub=*Digitef*, Palm=*Do*: Para=*Milt*. —

TABLE III.

THE PROPORTION OF THE FOREGOING MEASURES TO ENGLISH
 MEASURES.

	In.	decimals.
GRECIAN D-igit—Gré-d= <i>pulo</i>	0	·75546875
ROMAN D-igit—Ro-d= <i>peldu</i>	0	·72525
*JEWISH D-igit—Jew-d= <i>nad</i>	0	·912
	Feet.	decimals.
GRECIAN F-oot—Gre-f= <i>a, zypdou</i>	1	·00729 $\frac{1}{6}$
ROMAN F-oot—Ro-f= <i>naup</i>	0	·967
HEBREW C-ubit—Hé-c= <i>a, kef</i>	1	·824
GRECIAN C-ubit—Gre-c= <i>a, laznil</i>	1	·510935
ROMAN C-ubit—Ro-c= <i>b, olzu</i>	1	·4505
	In.	decimals.
GRECIAN Foot—Grec-fo= <i>be, zeipu</i>	12	·0875
ROMAN F-oot—Rom-f= <i>ab, syf</i>	11	·604
HEBREW C-ubit—He-c= <i>da, keik</i>	21	·888
GRECIAN C-ubit—Gre-c= <i>bei, bib</i>	18	·13125
ROMAN C-ubit—Ro-c= <i>boi, fys</i>	17	·406
	Eng. Miles.	decimals.
†GRECIAN M-iles—Gre-m= <i>pautzoun</i>	0	·763099

* In reducing the Jewish Measures, I have followed Bishop Cumberland, who makes the cubit = 21·888 inches. Dr. Arbuthnot thinks it plain that there were two sorts of cubits, the sacred one and the profane or common one; the former exceeding the latter by a hand's breadth, or three inches. The profane cubit he makes equal to 17·52 inches; the sacred one = 20·79 inches.

† Dr. Arbuthnot makes the Grecian mile equal to 805,8 $\frac{1}{2}$ English paces; which, agreeably to my own method, I have here reduced

	Eng. Miles.	decimals.
ROMAN M-ile—Rom-m= <i>nalpan</i> . . .	0	·915719
HEBREW MILE—Heb-mil= <i>a,teiboi</i> . . .	1	·3817
GRECIAN Stadium—Gre-st= <i>zoutleip</i> . . .	0	·093587 $\frac{1}{8}$
ROMAN Stadium—Ro-st= <i>bafos</i> . . .	0	·114465
HEBREW Stadium—He-st= <i>bik</i> . . .	0	·13817

The Memorial Lines.

Gré-d=*pulo*, Ro-d=*peldu*, Jew-d=*nad*: Ro-f=*naup*,
 Gre-f=*a,zy pdu*,
 Ro-c=*b,olz u*, He-c=*a,kef*, Gre-c=*a,laznil*: Grec-fo=
be,zeipu,
 Rom-f=*ab-syf*: Gre-m=*pautz*, Rom-m=*nalpan*, Heb-
 mil=*a,teiboi*:
 He-c=*da-keik*, Ro-c=*boi-fys*, Gre-c=*bei-bib*: Ro-st=
bafos, He-st=*bik*,
 Gre-st=*zoutleip*. —

TABLE IV.

SUPERFICIAL MEASURES.

	Sq. Feet.	dec.
English Acre—Ac=s- <i>fotlauz</i>	43560	·00
R-ood (=40 poles)—R= <i>azkouz</i>	10890	·00
POLE—Pol= <i>doid,el</i>	272	·25
	Sq. YARD.	
Acre—Ac=Y- <i>arokoz</i>	4840	
	Sq. Feet.	decimals.
Roman Square F-oot—Ro-fq= <i>nil</i>	0	·935089
GRECIAN Sq. F-oot—Gre-fq= <i>á-zafauts</i> . . .	1	·0146365
HEBREW Squ. C-ubit—He-cq= <i>i,tésnois</i> . . .	3	·326976
JUGERUM=R-oods 2, P-oles 18, F-eet 250·05—Jug=		
Ré-Pak-Fely-zu		
Πλέθ-pov=P-oles 36, F-eet 245—Πλέθ=Pis-Fdol		

to 0·763099 of a mile. Yet, according to his own computation, which makes 'Οργυιά=6 feet 0·525 inches, or, which is the same, 6·04375 feet, Σταδιον (=100 'Οργυια) will be 604·375 feet, and Μίλιον (=8 Σταδία) will be 4835 feet, exactly equal to the number of English feet in a Roman mile=0·915719 of a mile.

* Egyptian *ῥ* *Αρου-ρα* = R-oods 3, P-oles 2, F-eet 55 $\frac{1}{4}$ —
ῥ *Αρου* = Ri-Pe-Ful,ro.

			Eng. Acres.	decimals.
Jugerum—Jug=,sakdo	. . . . .	0	·618240	
Πλέθρον—Πλέθ=,etyst	. . . . .	0	·230632	
Egyptian <i>ῥ</i> <i>Αρουρ-α</i> — <i>ῥ</i> <i>Αρουρ</i> =,oist	. . . . .	0	·763768	
	Greek Sq. Feet.		Eng. Sq. F.	decim.
Πλέθρον =	10,000	=	10,146	·3650
<i>ῥ</i> <i>Αρουρα</i> $\frac{1}{2}$ Πλέθρον =	5,000	=	5,073	·1825
Egyptian <i>ῥ</i> <i>Αρουρα</i> =	10,000 Squ. Cub.	=	33,269	·7600
	Rom. Sq. Feet.		Sq. F.	decim.
† Actus minimus 120 × 40	=	4,800	=	4,488 ·4272
Actus Quadratus 120 × 120	=	14,400	=	13,465 ·2816
Clima 60 × 60	=	3,600	=	3,366 ·3204
Versus 100 × 100	=	10,000	=	9,350 ·8900
‡ Jugerum = 2 Actus Quad.	=	28,800	=	26,930 ·5632
Uncia $\frac{1}{12}$ of the Jugerum	=	2,400	=	2,244 ·2136

The Memorial Lines.

Ac=s-fotlauz, R=a zkouz, Pol=doid,el; Ac=Y arokozque;
 Gre-fq=á,zafauts, Ro-fq=nil, He-cq=i,tésnois. —
 Jug=Ré-Pak-Fely,zu, Πλέθ=Pis-Fdol, *ῥ* *Αρου*=Ri-Pe-Ful,ro.

Jug=,sakdo, Πλέθ=,etyst, *ῥ* *Αρουρ*=,oist. —

TABLE V.

MEASURES OF CAPACITY.

ENGLISH WINE MEASURE.

$$\text{TUN} = \begin{cases} 2 \text{ B-uts—Be} \\ 3 \text{ PUncheons—Pu} \\ 4 \text{ Hogsheads—Hof} \\ 6 \text{ TIERces—Tiers} \end{cases}$$

* The Grecian *ῥ* *Αρουρα* was $\frac{1}{2}$ of the Πλέθρον.

† Actus is the length of one furrow, so far as a plough goes before it turns, in length 120 feet.

‡ The Jugerum was divided, like the As, into twelve parts.

$$\text{Tun} = \left\{ \begin{array}{l} 8 \text{ BARRELS—Bark} \\ 14 \text{ R-undlets—Raf} \\ 252 \text{ GALLONS—Galdud} \\ 2,016 \text{ PINTS—Pidzas} \\ 58,212 \text{ Solid INCHES—Inukdad} \end{array} \right.$$

Tun=Be=Put=Hof=Tiers=Bark=Raf=Galdud=Pidzas=Inukdad.

ENGLISH CORN MEASURE.

QUARTER=8 Bushels—Quar=Busk

$$\text{BUSHel} = \left\{ \begin{array}{l} 4 \text{ PECKS—Peco} \\ 8 \text{ GALLONS—Galk} \\ 64 \text{ PINTS—Pinso} \end{array} \right.$$

Bush=Peco=Galk=Pinso: Quar=Busk.

GALLON of Wine—Gáll-w=eta 231 Cubic Inches.

*GALLON of Corn—Gal-c=doid,ro 272 $\frac{1}{4}$

PINT DRY measure—Pin-dr=if,rid 34 $\frac{1}{8}$

PINT LIQUID measure—Pin-liquid=ek,prei 28 $\frac{7}{8}$

$$\text{Hogshead} = \left\{ \begin{array}{l} 63 \text{ GALLONS—Galsi} \\ 504 \text{ PINTS—Pinúzo} \end{array} \right.$$

Gáll-w=eta, Gal-c=doid,ro, Pin-dr=if,rid, Pin-liquid=ek,prei.

Hog=Galsi=Pinúzo.

GRECIAN MEASURES OF CAPACITY.

$$\begin{array}{l} \text{Μετρητής} = \left\{ \begin{array}{l} 12 \text{ X-όες—Xád} \\ 72 \text{ Ξ-έσαι—Ξoid} \\ 144 \text{ Κοτύλλ-αι—Κοτύλλαff} \end{array} \right. \\ \text{Μέδ-ιμνος} = \left\{ \begin{array}{l} 48 \text{ Χοιν-ικές—Χοινok} \\ 72 \text{ Ξέστ-αι—Ξέστpe} \\ 144 \text{ Κοτύλλ-αι—Κοτύλλαff} \end{array} \right. \end{array}$$

* This is the common received content of a corn gallon, and according to which the following computations are made; but strictly, by Act of Parliament, the corn gallon contains but 268.8 cubic inches. By experiment it appears also, that the standard wine gallon doth contain but 224 cubic inches.—See Ward's Mathematician's Guide, Part I. Chap. 3.

Μετ=Χάδ=Ξοιδ=Κοτύλαff, Μέδ=Χοινok=Ξέστρεque=
Κοτύλαff.

$$\Xi\acute{\epsilon}\sigma\tau\text{-}\eta\varsigma = \left\{ \begin{array}{l} 2 \text{ Κοτύλ-αι} — \text{Κοτύλε} \\ 8 \text{ 'Οξύ-βαφα} — \text{'Οξύk} \\ 12 \text{ Κύαθ-οι} — \text{Κύαθbe} \\ 48 \text{ Μύστρ-α} — \text{Μύστρok} \\ 120 \text{ Κοχλ-ιάρια} — \text{Κοχλαdz} \end{array} \right.$$

Ξέστ=Κοτύλε=Κοχλαdz='Οξύk=Κύαθbeque=Μύστρok.

	Ξέστ-αι.
* Μετ-ρητῆς l. (=12 Χόες)	= 72—Μετ=Ξέστοιδ
Χοῦς l. (=12 Κοτύλαι	= 6—Χοῦς=Ξau
Μέδιμ-ρος d.	= 72—Μέδιμ=Ξοιδ
Χοῖν-ιξ d.	= 1½—Χοῖν=Ξa,re
	Μύστρ-α.
Ξέστ-ης (=12 Κύαθοι)	= 48—Ξέστ=Μύστρok
Κοτύ-λη (=6 Κύαθοι)	= 24—Κοτύ=Μεf
'Οξύβ-αφον (=3 Κόγχαι)	= 6—'Οξύβ=Μau
Κύα-θος (=5 Χῆμαι)	= 4—Κύα=Μο
Κόγχ-η (=5 Κοχλιάρια)	= 2—Κόγχ=Με

Μετ=Ξέστοιδ, Χοῦς=Ξau, Μέδιμ=Ξοιδ, Χοῖν=Ξa,re.
Ξέστ=Μύστρok, Κοτύ=Μεf, 'Οξύβ=Μau, Κύα=Μο, Κόγλ
=Με.

ROMAN MEASURES OF CAPACITY.

$$\begin{array}{lcl} \text{CULEus} = & \left\{ \begin{array}{l} 20 \text{ AMPHORæ} — \text{Amphex} \\ 40 \text{ URNæ} — \text{Urnoz} \\ 860 \text{ CONGii} — \text{Congbauz} \end{array} \right. \\ \text{SEXTarius} = & \left\{ \begin{array}{l} 2 \text{ HEMINæ} — \text{Hemine} \\ 4 \text{ QUARTarii} — \text{Quartarf} \\ 8 \text{ ACETABula} — \text{Acetak} \\ 12 \text{ CYATHi} — \text{Cyathbe} \\ 48 \text{ LIGULæ} — \text{Liglok} \end{array} \right. \end{array}$$

Cul=Amphex=Urnoz=Congbauz. —

Sext=Hemine=Quartarf=Acetak=Cyathbeque=Liglok

* Called also Ἀμφορεύς, and Κάδος.

N. B. l. denotes measures for liquid things, d. measures for dry things; the rest are used as measures for both.

	SEXTarii.	
CULEus l. (=20 Amphoræ)	= 960—Cul=Sexnauz	
AMPHORA l. (=2 Urnæ)	= 48—Amph=Sok	
URNa l. (=4 Congii)	= 24—Urn=Sextef	
CONGIus l.	= 6—Congi=Sau	
MODIus d. (=2 Semi-modii)	= 16—Mod=Sas	

	LIGULæ.	
SEXTarius (=2 Hemina)	= 43—Sext=Ligulok	
HEMINa (=2 Quartarii)	= 24—Hemi=Lef	
QUARTarius (=2 Acetabula)	= 12—Quart=Lad	
ACETABulum (=1½ Cyathus)	= 6—Acetab=Lau	
CYATHus	= 4—Cyath=Lo	

Cul=Sexnauz, Amph=Sok, Urn=Sextef, Congi=Sau,
Mod=Sas.
Sext=Ligulok, Hemi=Lef, Quart=Lad, Acetab=Lau,
Cyath=Lo.

JEWISH MEASURES OF CAPACITY.

BATH =	{	3 SEAHs—Seat
		6 HINS—Hins
		10 OMERS—Omeraz
		18 C-abs—Cak
		72 LOGs—Logpe
		96 CAPHs—Caphnau
		330 GACHALS—Gachaltiz

Bath=Seat=Hins=Omeraz=Cak=Logpe=Caphnau=
Gachaltiz.

BATHs or EPHALs.

CHOMer or Coron	= 10—Chom=Bath-Ephaz
LETEch d.	= 5—Let=Ephu

CABS.

BATH or EPHal	= 18—Bath-Eph=Cabak
HIN l. ½ of Seah	= 3—Hín=Cabi
SEAh	= 6—Sea=Cabs

The HIN was=12 L-ogs=16 C-aphs l.—Hín=Lad=Cas.
CAB=20 G-achals d.—Cab=Gcz.
Omer or Gomer was a dry measure.

Chom = Bath-Ephaz, Let = Ephu, Bath-Eph = Cabak,
 Hín = Cabi, Sea = Cabs.
 Hín = Lad = Cas, Cab = Gez. —

The Memorial Lines.

Tun = Be = Put = Hof = Tiers = Bark = Raf = Galdud = Pid-
 zas = Innkdad.

Bush = Peco = Galk = Pinso: Quar = Busk: Hog = Galsi =
 Pinúzo.

Gáll-w = eta, Gal-c = doid, ro, Pin-dr = if, rid, Pin-liquid =
 ek, prei.

Μετ = Xád = Zoid = Κοτύλαff, Μέδ = Χοινók = Ξέστρεque =
 Κοτύλαff.

Ξέστ = Κοτύλε = Κοχλάdz = 'Οξύk = Κύαθbeque = Μύστροk.

Μετ = Ξέστοid, Χοῦς = Ξau, Μέδιμ = Ξoid, Χοῖν = Ξa, re.

Ξέστ = Μύστροk, Κοτύ = Mef, 'Οξύβ = Mau, Κύα = Mo, Κόγχ
 = Me.

Cul = Amphez = Urnoz = Congbauz. —

Sext = Hemine = Quartarf = Acetak = Cyathbeque = Liglok.

Cul = Sexnauz, Amph = Sok, Urn = Sextef, Congi = Sau,
 Mod = Sas.

Sext = Ligulok, Hemi-Lef, Quart = Lad, Acetab = Lau,
 Cyath = Lo.

Bath = Seat = Hins = Omeraz = Cak = Logpe = Caphnau =
 Gachaltiz.

Chom = Bath-Ephaz, Let = Ephu, Bath-Eph = Cabak,
 Hín = Cabi, Sea = Cabs.

Hín = Lad = Cas, Cab = Gez.

TABLE VI.

MEASURES OF CAPACITY REDUCED TO ENGLISH MEASURES.

A PINT DRY = 34.0312 } Cubic inches
 A PINT LIQUID = 28.875 }

— Pin-dr = if, zibe, Pin-liquid = ek, hoil.

DRY.

	Pints.	In. decim.
*Μέδιμνος—Μέδιμνος=οιζ- <i>t</i>	70	3 ·501
MODIUS—Modi= <i>bau-p</i>	16	7 ·68
EPHah—Eph= <i>ub-ad</i>	51	12 ·107
Ξέστ-ης—Ξέστ= <i>z-it</i>	0	33 ·158
SEXTARIUS—Sextar= <i>a</i>	1	0 ·48
CAB—Cab= <i>d-ek</i>	2	28 ·432

LIQUID.

	Pints.	In. decim.
†Μετρ-ητης—Μετρ= <i>eid-an</i>	82	19 ·626
AMPHORA—Am= <i>up-az</i>	57	10 ·66
‡BATH—Bath= <i>sy-bu</i>	60	15 ·2
Ξέστ-ης—Ξέστ= <i>a-f</i>	1	4 ·283
SEXTARIUS—Sext= <i>a-u</i>	1	5 ·636
‡LOG—Log= <i>z-do</i>	0	24 ·2735

Bush. decim^{als}.

Μέδ-ιμνος—Μέδ= <i>a,zous</i>	1	·09612
MODIUS—Mod= <i>elild</i>	0	·253525
EPHah } —Eph= <i>kydoti</i>	0	·802433
Chomer }		

Gall. decim^{als}.

Μετρ-ητης—Μετρ= <i>az,til</i>	10	·335
AMPHORA—Amph= <i>oi,apad</i>	7	·1712
BATH—Bath= <i>p,laul</i>	7	·5658
CONGIUS—Con= <i>kousteil</i>	0	·896385

Pints. decim^{als}.

Ξέστ-ης liquid—Ξέστ= <i>a,boh</i>	1	·1483
Ξέ-στης dry—Ξέ= <i>z,noif</i>	0	·97447

* Besides the Attic Medimnus, there was a *Medimnus Georgicus*, equal to 6 Roman *Modii*.

† The Metretes of Syria was equal to the Roman *Congius* = 7·171 pints.

‡ The Jewish measures are here, according to Bishop Cumberland, from the Rabbins: but Bishop Hooper, from Josephus, makes the Jewish Bath equal to the Attic *Μετρητης*, and consequently the Log equal to the *Ξέστης*. Dr. Arbuthnot has given us tables according to both, but seems to prefer Bishop Hooper's account to the other.

	P ^{nts} decimals
SEXTarius liquid—Sext= <i>á,boulak</i>	1 ·19518
SEXTarius dry—Sext= <i>a,zafei</i>	1 ·0148
CAB liquid—Cab= <i>t,isd</i>	3 ·36257
CAB dry—Cab= <i>e,kóp</i>	2 ·84731
LOG—Log= <i>z,eif</i>	0 ·84065

The Memorial Lines.

— Pin-dr=*if,zibe*, Pin-liquid=*ek-koil*.
Méδινυ=*oiz-t*, *Modi*=*bau-p*, *Eph*=*ub-ad*, *Ξέστ*=*z-it*,
Sextar=*a*, *Cab*=*d-ek*,
Bath=*sy-bu*, *Μετρ*=*eid-an*, *Am*=*up-az*, *Ξέστ*=*a-f*, *Sext*
 =*a-u*, *Log*=*z-do*,
Eph=*kydoti*, *Mod*=*elild*, *Méδ*=*a,zous*, *Ξέ*=*z,noif*, *Cab*
 =*e,kópque*,
Amph=*oi,apad*, *Bath*=*p,laul*, *Μετρ*=*az,til*, *Ξέστ*=*a,bok*,
Cab=*t,isd*,
Sext=*á,boulak*, *Con*=*kousteil*, *Sext*=*a,zafei*, *Log*=*z,eif*.

TABLE VII.

WEIGHTS.

N. B. L or Li stands for Libra or pound, Oz. for ounce,
 Li-t Pound T-roy, L-avoir Pound AVOIRduPOIS.

A Pound T-roy=12 Ounces—Li-t=Ozad

An Ounce Troy = $\begin{cases} 8 \text{ DRAMS—Drák} \\ 24 \text{ SCRUPLES—Scref} \\ 20 \text{ P-ennyweights—Pez} \\ 480 \text{ GRAINS—Grafky} \end{cases}$

* A Pound Avoirdupois = $\begin{cases} 16 \text{ Ounces—Ozas} \\ 256 \text{ DRAMS—Drels} \end{cases}$

Li-t=Ozad, Oz=Drák=Scref=Pez=Grafky, L-áv=
 Ozas, L-áv=Drels.

* According to the proportion laid down by Mr. Greaves, viz. that the avoirdupois pound is to the troy pound as 175 to 144: in Dr. Arbuthnot's tables it is as 17 to 14, which is a very considerable difference, being but $4\frac{2}{7}$ grains less in the pound.

	Grains Troy.
Pound T-roy—Li-t=Grupauz	5760
Ounce Troy—Oz=oky	480
DRAM—Dr=auz	60
PENNYweight—Pen=Gref	24
SCRUPLE—Scrup=dy	20
* Pound Avoirdupois—L-av=oith	7000
Ounce Avoirdupois—Oz-av=otoi,l	437.5
Li-t=Grupauz, Oz=oky, Dr=auz, Pen=Gref, Scrup =dy, L-av=oithque, Oz-av=otoi,l. —	

ANCIENT WEIGHTS.

A-ttic T-alent=	{ 60 M-inas—Mauz
	{ 6000 DRACHMS—Drauth
HEbrew T-alent=	{ 3000 SHEKELS—Shith
	{ 60 M-anehs—Mauz
SHEKEL =	{ 2 BEKAHS—Beke
	{ 4 ZUZAS—Zuf
	{ 20 G-erachs—Gez

A-t=Mauz=Drauth; He-t=Shith, He-t-pond=Mauz;
Shek=Beke=Zuf=Gez.

ROMAN AND GRECIAN LESSER WEIGHTS.

LIBRA=	12 UNCIÆ—Lib=Unad
	{ 3 DUELLÆ—Duelt
UNCIA =	{ 4 SICILICI—Sicilo
	{ 6 SEXTULÆ—Ses
	{ 8 DRACHMÆ—Drak
DRACHMA =	{ 3 SCRIPTULA—Script
	{ 6 OBOLI—Obs
	{ 18 SILIQUÆ—Silak
	{ 72 GRANEA vel LENTES—Groid

Lib=Unad, —

Un=Duel=Sicilo=Ses=Drak, Drach=Script=Silak=
Obs=Groid.

* Mr. Ward says, that, by a very nice experiment, he found that one pound avoirdupois is equal to 14 ounces 11 penny-weights and $15\frac{1}{2}$ grains troy, which is $6999\frac{1}{2}$ grains; differing but half a grain in the pound from Mr. Greaves.—*Mathematician's Guide*, part i. chap. 3.

GRANA Σιτάρια.

LIBRA Λίτρα—Lib=Grasnad	6912
UNCIA Οὐγγία—Unc=lois	576
* DRACHMA Δραχμή—Drachm=oid	72
SCRUPULUM Γράμμα—Scrupul=ef	24
† OBOLOS Ὀβολός—Obol=ad	12
SILIQUA Κεράτιον—Sil=f	4

Lib=Grasnad, Unc=lois, Drachm=oid, Scrupul=ef,
Obol=ad, Sil=f.

DIVISIO ASSIS.

	Unc.		Unc.
AS	12	SEMISS	6
DEUNX	11	QUINCUNX	5
DEXTANS	10	TRIENS	4
DODRANS	9	QUADRANS	3
BES	8	SEXTANS	2
SEPTUNX	7	UNCIA	1

As=deu-dex — dod-bes — septún-semi — quin-tri-qua —
sext-unc.

The Memorial Lines.

Lí-t=Ozad, Oz=Drák=Scref=Pez=Grafky, L-áv=Ozas,
L-áv=Drels.

Li-t=Grupauz, Oz=oky, Dr=auz, Pen=Gref, Scrup=dy,
L-av=oithque,

Oz-av=otoi, l. —

A-t=Mauz=Drauth; He-t=Shith, He-t-pond=Mauz;
Shek=Beke=Zuf=Gez.

Lib=Unad, —

Un=Duel=Sililo=Ses=Drak, Drach=Script=Silak=
Obs=Groid.

* N. B. The Romans divided their ounce into 7 denarii as well as 8 drachms; and since they reckoned their denarius equal to the Attic drachm, this will make the Attic weights $\frac{1}{8}$ heavier than the correspondent Roman weights.

† The Ὀβ-ολος was divided into 6 Χαλ-κοί or *Ereoli*, and the Χαλκ-ός into 7 Λεπτ-α or *Minuta*—Ὀβ=Χαλς, Χαλκ=Λεπτοι.

‡ The Ἡμίωβολον, Ἡμίδραχμον, Διδραχμον, &c. are evident from their names.

Lib=Grasnad, Unc=*lois*, Drachm=*oid*, Scrupul=*ef*, Obol=*ad*, Sil=*f*.

As=dëu-dex — dod-bes — septún-semi — quin-tri-qua — sext-unc.

TABLE VIII.

ANCIENT WEIGHTS REDUCED TO ENGLISH TROY WEIGHTS.

	Troy Grains.	dec.
ROMAN Ounce—Rom-oz= <i>fik</i>	438	·00
SHEKEL—Shek= <i>ebou</i>	219	·00
*ROMAN D-rachm=Ro-d= <i>uf,pu</i>	54	·75
DENARIUS—Den= <i>se,loi</i>	62	·57
†ATTIC D-rachm—A-d= <i>sei,f</i>	68	·4
	lib. oz.	p-w. gr.
ROMAN L-ibra—Ro-l= <i>az-an</i>	0	10 19 0
HEBREW M-aneh—He-m= <i>e-t-oi-be</i>	2	3 7 12
HEBREW T-alent—He-t= <i>báf-yz-al</i>	114	0 15 0
‡ANCIENT ATTIC M-ina—At-m= <i>a-d-u</i>	1	2 5 0
ANCIENT ATTIC T-alent—At-t= <i>pa-t</i>	71	3 0 0

The Memorial Lines.

Rom-oz=*fik*, Shek=*ebou*, Ro-d=*uf,pu*, Den=*se,loi*,
A-d=*sei,f*.
He-t=*báf-yz-al*, Ro-l=*az-an*, He-m=*e-t-oi-be*, At-m=*a-d-u* At-t=*pa-t*.

* So Bishop Cumberland, from the Rabbinical accounts. But Bishop Hooper, from Philo and Josephus, makes it equal to the Attic *Stater*, or *Tetradrachm*=68·4+4, or 67+4 grains.

† According to the weight of the standard mina of Solon, Bishop Hooper supposes, that whilst the money drachm fell gradually from 68·4 to 62·57 grains, the ponderal drachm continued still the same, which I have therefore here retained. Dr. Bernard lays the middle sort of Attic drachms at 66 grains, which (Table I.) are accordingly valued at 8½*l*. But the weight of the Attic drachm, under the first Roman Emperors, and for some considerable time before, was about 62·57 grains; and upon this drachm, and the equality of it with the Roman denarius, most of the computations in classic authors are founded.

‡ The common Attic mina was supposed equal to 12½ Roman ounces. The mina medica was 16 Roman ounces, and exactly the weight of our avoirdupois pound.

TABLE IX.

JEWISH AND ROMAN MONEY, ACCORDING TO BISHOP
CUMBERLAND.

	l.	s.	d.
HEbrew M-ina—He-m= <i>p-a-l</i>	7	1	5
HEbrew T-alent—He-t= <i>tút-ab-az-h</i> . . .	353	11	10½
Golden DARICK=12 G-erachs—Dar= <i>Gád</i> = <i>la-do</i>	1	0	4
HEbrew T-alent of Gold (<i>O-r</i>)—He-to= <i>ufoil-ba-p-h</i>	5475	11	7½
SHEKEL—Shek= <i>sé-do-ro</i>	0	2	4¼
Silver DENARIUS—Den= <i>doi-t</i>	0	0	7¾
ASSARIUM=F-arthing and half—Assar= <i>Fa-h</i>			
A QUADRANT=¾ of a Farthing—Quád= <i>iro</i>			
A MITE=⅓ of a Farthing—Mit= <i>ri-F</i>			

The Memorial Lines.

He-m = *p-a-l*, He-t = *tút-ab-az-h*, Dar = *Gád* = *la-do*,
He-to = *ufoil-ba-p-h*,
Shek = *sé-do-ro*, Den = *doi-t*, Assar = *Fa-h* Quád = *iro*
Mit = *ri-F*.

DECIMAL TABLES

FOR THE MORE EASY REDUCTION OF ANCIENT COINS, WEIGHTS,
AND MEASURES.

Those who understand decimal arithmetic will, I hope, excuse me, if, for the sake of such as are unacquainted therewith, I lay down two or three observations, in order to make the following tables more generally useful:

First, that the denominator of every decimal fraction is an unit, with as many ciphers as there are places of numbers in the fraction: thus $\cdot 5$ signifies $\frac{5}{10}$, $\cdot 05$ signifies $\frac{5}{100}$, $\cdot 005$ signifies $\frac{5}{1000}$, &c.

Secondly, that the nine figures at the left hand of each of the tables may stand either for units, or, by the supposed addition of one, two, three, or more ciphers, for tens, hundreds, thousands, &c.

Thirdly, that if the said nine figures are supposed to stand for one, two, three, four, &c., then the decimals stand as in the table: if for ten, twenty, thirty, forty, &c. or for one hundred, two hundred, &c. then, for every such supposed addition of a cipher, one figure in the place of decimals is to be added to the place of integers.

Thus a Jewish cubit is equal to 1 English foot and 824 thousandth parts of a foot.

		Ft. decim.
1 cubit	=	1 $\cdot 824$
10 cubits	=	18 $\cdot 24$
100 cubits	=	182 $\cdot 4$
1000 cubits	=	1824

If there are not places enough of decimals to answer, they must be supplied with ciphers:

		Lib. decim.
Thus, 1 Attic talent	=	206 $\cdot 25$
10 Attic talents	=	2062 $\cdot 5$
100 Attic talents	=	20625
1000 Attic talents	=	206250 &c.

But as the common computation in classic authors is by sesterces and drachms, I shall exemplify more particularly the foregoing observations in the two tables drawn up for them.

SESTERCE = $1d. 3f. \frac{3}{4}$, in decimal fractions of a pound sterling = $\cdot 00807291667$
 —Sest = *zykypenasso*

A-ttic D-rachm, or Roman denarius = $7d. 3f.$, in decimal fractions of a pound sterling = $\cdot 032291667$ —
 A-d = *zidenasso*.

1 Sestertius.	Decem Sestertii or Nummi. Centum Sestertii. Sestertium, or 1000 Sestertii. Decem Sestertia, or 10000 HS. Centum Sestertia, or 100000 HS. Decies Sestertium, or 1 Million HS. Centies Sestertium, or 10 Millions HS. Millies Sestertium, or 100 Millions HS. Decies Millies, or 1000 Millions HS. Centies Millies, or 10000 Millions HS. Millies Millies, or 100000 Millions HS.	1 Drachm.	10 Drachms. 100 Drachms, or 1 Mina. 1000 Drachms, or 10 Minae. 1 Myriad (= 10000 Dr.) or 100 Minae. 10 Myriads (= 100000 Dr.) or 1000 Minae. 100 Myriads (= 1 Million Dr.) or 10000 Minae. 1000 Myriads (= 10 Mill. Dr.) or 100000 Minae. 10000 Myriads of Drachms, or Myr. of Myriads. 10 Myriads of Myriads of Drachms.
1	$\cdot 00807291667$	1	$\cdot 032291667$
2	$\cdot 01614583333$	2	$\cdot 064583333$
3	$\cdot 02421875000$	3	$\cdot 096875000$
4	$\cdot 03229166667$	4	$\cdot 129166667$
5	$\cdot 04036458333$	5	$\cdot 161458333$
6	$\cdot 04843750000$	6	$\cdot 193750000$
7	$\cdot 05651041667$	7	$\cdot 226041667$
8	$\cdot 06458333333$	8	$\cdot 258333333$
9	$\cdot 07265625000$	9	$\cdot 290625000$

According to the observations before laid down, it is evident that

	Lib.	decim.
1 Sestertium, or 1000 HS.	= 008	$\cdot 07291667$
2 Sestertia, or 2000 HS.	= 016	$\cdot 14583333$
3 Sestertia, or 3000 HS.	= 024	$\cdot 21875$

And so down to 9 sestertia; the three first figures of the table being integers, the rest decimals. So,

	Lib.	decim.
*Decies Sestertium, or 1 Mill. HS.	= 8072	·91667
Vicies, or 2 Million HS.	= 16145	·83333
Tricies, or 3 Million HS.	= 24218	·75 &c.

Hence the value of most of the sums mentioned in classic authors may be discovered from the tables at first sight; the rest by the help only of addition. Thus,

What is the value of the Centies Quinquagies HS?

	Lib.	decim.
Centies HS	= 80729	·1667
Quinquagies	= 40364	·5833
Centies Quinquagies	= 121093	·75

What is the value of 375 Attic Drachms?

300 Drachms	= 9	·6875
70 Drachms	= 2	·26041667
5 Drachms	= 0	·16145833
375 Drachms	= 12	·109375

What is the value of 51 Myriads of Drachms?

50 Myriads	= 16145	·83333
1 Myriad	= 322	·91667
51 Myriads	= 16468	·75

Note, That the table for drachms or denarii will also serve for minæ and for asses, remembering that a denarius is equal to 10 asses, and a mina to 100 drachms. Thus,

* With the numeral adverb, *Centena Millia* are always understood.

	Lib.	decimals.
Æris (sc. Assium) Millia X.=1000 den.	= 32	·291667
Æris Millia XXV.=2500 denarii	= 80	·72916
Æris Millia LXXV.=7500 denarii	= 242	·1875

What has been already said will easily be applied to those which follow:

*Attic Drachm =8½ <i>l.</i>	*Attic Talent =206 <i>l.</i> 5 <i>s.</i>	†Attic Talent =193 <i>l.</i> 15 <i>s.</i>
<i>l.</i> <i>decim.</i>	<i>l.</i> <i>decim.</i>	<i>l.</i> <i>decim.</i>
1 | 0 ·034375	1 | 206 ·25	1 | 193 ·75
2 | 0 ·068750	2 | 412 ·50	2 | 387 ·50
3 | 0 ·103125	3 | 618 ·75	3 | 581 ·25
4 | 0 ·137500	4 | 825 ·00	4 | 775 ·00
5 | 0 ·171875	5 | 1031 ·25	5 | 968 ·75
6 | 0 ·206250	6 | 1237 ·50	6 | 1162 ·50
7 | 0 ·240625	7 | 1443 ·75	7 | 1356 ·25
8 | 0 ·275000	8 | 1650 ·00	8 | 1550 ·00
9 | 0 ·309375	9 | 1856 ·25	9 | 1743 ·75

‡Shekel =2 <i>s.</i> 7 <i>d.</i>	‡Hebrew Talent =387 <i>l.</i> 10 <i>s.</i>	Heo. Tal. Gold =16 Tal. Silver.
<i>l.</i> <i>decim.</i>	<i>l.</i> <i>decim.</i>	<i>l.</i>
1 | 0 ·129166667	1 | 387 ·5	1 | 6200
2 | 0 ·258333333	2 | 775 ·0	2 | 12400
3 | 0 ·387500000	3 | 1162 ·5	3 | 18600
4 | 0 ·516666666	4 | 1550 ·0	4 | 24800
5 | 0 ·645833333	5 | 1937 ·5	5 | 31000
6 | 0 ·775000000	6 | 2325 ·0	6 | 37200
7 | 0 ·904166666	7 | 2712 ·5	7 | 43400
8 | 1 ·033333333	8 | 3100 ·0	8 | 49600
9 | 1 ·162500000	9 | 3487 ·5	9 | 55800

* According to Dr. Bernard.

† According to Dr. Arbuthnot.

‡ The shekel is here valued equal to 4 Attic drachms, according to Josephus; and this valuation Dr. Arbuthnot has followed in his Dissertations, though his tables are according to Bishop Cumberland. The talent = 3000 shekels.

Grecian Digit.	
In.	decim.
1	0 ·75546875
2	1 ·51093750
3	2 ·26640625
4	3 ·02187500
5	3 ·77734375
6	4 ·53281250
7	5 ·28828125
8	6 ·04375000
9	6 ·79921875

Roman Digit.	
In.	decim.
1	0 ·72525
2	1 ·45050
3	2 ·17575
4	2 ·90100
5	3 ·62625
6	4 ·35150
7	5 ·07675
8	5 ·80200
9	6 ·52725

Jewish Digit.	
In.	decim.
1	0 ·912
2	1 ·824
3	2 ·736
4	3 ·648
5	4 ·560
6	5 ·472
7	6 ·384
8	7 ·296
9	8 ·208

Grecian Foot.	
Ft.	decim.
1	1 ·00729
2	2 ·01458
3	3 ·02187
4	4 ·02916
5	5 ·03645
6	6 ·04375
7	7 ·05104
8	8 ·05833
9	9 ·06562

Roman Foot.	
Ft.	decim.
1	0 ·967
2	1 ·934
3	2 ·901
4	3 ·868
5	4 ·835
6	5 ·802
7	6 ·769
8	7 ·736
9	8 ·703

Jewish Cubit.	
Ft.	decim.
1	1 ·824
2	3 ·648
3	5 ·472
4	7 ·296
5	9 ·120
6	11 ·944
7	12 ·768
8	14 ·592
9	16 ·416

Roman Mile.	
Mile	decim.
1	0 ·915719
2	1 ·831438
3	2 ·747157
4	3 ·662876
5	4 ·578595
6	5 ·494314
7	6 ·410033
8	7 ·325752
9	8 ·241471

Jewish Mile.	
Mile	decim.
1	1 ·3817
2	2 ·7634
3	4 ·1451
4	5 ·5268
5	6 ·9085
6	8 ·2902
7	9 ·6719
8	11 ·0536
9	12 ·4353

Roman Sq. Ft.	
Sq. Ft.	decim.
1	0 ·935089
2	1 ·870178
3	2 ·805267
4	3 ·740356
5	4 ·675445
6	5 ·610534
7	6 ·545623
8	7 ·480712
9	8 ·415801

Grecian Sq. Foot.		
Sq. Ft.	decim.	
1	1	·0146365
2	2	·0292730
3	3	·0439095
4	4	·0585460
5	5	·0731825
6	6	·0878190
7	7	·1024555
8	8	·1170920
9	9	·1317285

Πλέθρον.		
Acre	decim.	
1	0	·230632
2	0	·461264
3	0	·691896
4	0	·922528
5	1	·153160
6	1	·383792
7	1	·614424
8	1	·845056
9	2	·075688

Jugerum.		
Acre	decim.	
1	0	·61824
2	1	·23648
3	1	·85472
4	2	·47296
5	3	·09120
6	3	·71944
7	4	·32768
8	4	·94592
9	5	·56416

Egyptian Ἀπουρα.		
Acre	decim.	
1	0	·763768
2	1	·527536
3	2	·291304
4	3	·055072
5	3	·818840
6	4	·582608
7	5	·346376
8	6	·110144
9	6	·873912

Ξέστης dry.		
Pint	decim.	
1	0	·97447
2	1	·94894
3	2	·92341
4	3	·89788
5	4	·87235
6	5	·84682
7	6	·82129
8	7	·79576
9	8	·77023

Sextarius d-y.		
Pint	decim.	
1	1	·0148
2	2	·0296
3	3	·0444
4	4	·0592
5	5	·0740
6	6	·0888
7	7	·1036
8	8	·1184
9	9	·1332

Cab dry.		
Pint	decim.	
1	3	·84731
2	7	·69462
3	11	·54193
4	15	·38924
5	19	·23655
6	23	·08386
7	26	·93117
8	30	·77848
9	34	·62579

Medimnus.		
Bushel	decim.	
1	1	·09612
2	2	·19224
3	3	·28836
4	4	·38448
5	5	·48060
6	6	·57672
7	7	·67284
8	8	·76896
9	9	·86508

Modius.		
Bushel	decim.	
1	0	·253525
2	0	·507050
3	0	·760575
4	1	·014100
5	1	·267625
6	1	·521150
7	1	·774675
8	2	·028200
9	2	·281725

Ephah. Bushel decim.		Ξέστυς liquid. Pints decim.		Sextarius liquid. Pints decim.	
1	0 ·802433*	1	1 ·1483	1	1 ·19518
2	1 ·604867	2	2 ·2966	2	2 ·39036
3	2 ·407300	3	3 ·4449	3	3 ·58554
4	3 ·209734	4	4 ·5932	4	4 ·78072
5	4 ·012168	5	5 ·7415	5	5 ·97590
6	4 ·814601	6	6 ·8898	6	7 ·17108
7	5 ·617035	7	8 ·0381	7	8 ·36626
8	6 ·419469	8	9 ·1864	8	9 ·56144
9	7 ·221902	9	10 ·3347	9	10 ·75662

Cab liquid. Pints decim.		Log. Pints decim.		Amphora. Hhds. decim.	
1	3 ·36257	1	0 ·84064	1	0 ·113821
2	6 ·72514	2	1 ·68128	2	0 ·227642
3	10 ·08771	3	2 ·52192	3	0 ·341463
4	13 ·45028	4	3 ·36256	4	0 ·455284
5	16 ·81285	5	4 ·20320	5	0 ·569105
6	20 ·17542	6	5 ·04384	6	0 ·682926
7	23 ·53799	7	5 ·88448	7	0 ·796747
8	26 ·90056	8	6 ·72512	8	0 ·910568
9	30 ·26313	9	7 ·56576	9	1 ·024389

Metretes. Hhds. decim.		Bath. Hhds. decim.		Congius.† Gall. decim.	
1	0 ·16404	1	0 ·114858	1	0 ·896385
2	0 ·32808	2	0 ·229716	2	1 ·792770
3	0 ·49212	3	0 ·344574	3	2 ·689155
4	0 ·65616	4	0 ·459432	4	3 ·585540
5	0 ·82020	5	0 ·574290	5	4 ·481925
6	0 ·98424	6	0 ·689148	6	5 ·378310
7	1 ·14828	7	0 ·804006	7	6 ·274695
8	1 ·31232	8	0 ·918864	8	7 ·171080
9	1 ·47636	9	1 ·033722	9	8 ·067465

* The exact fraction is $\cdot802433\frac{1}{8}$. In the Jewish measures I have followed Bishop Cumberland. The Ephah, according to Josephus, = 1·0961 bushel, and the Cab = 3·874 pints; the Cab liquid = 4·5933 pints, the Log equal to the Attic Ξέστυς, and the Bath equal to the Metretes.

† Equal to the Metretes of Syria.

Attic Drachm =62·57 Gr.		Shekel =4 Att. Drachms.		Attic Drachm =62·57 Gr.	
Oz.	decim.	Oz.	decim.	lb. Troy	decim.
1	0	1	0	1	0
2	0	2	1	2	0
3	0	3	1	3	0
4	0	4	2	4	0
5	0	5	2	5	0
6	0	6	3	6	0
7	0	7	3	7	0
8	1	8	4	8	9
9	1	9	4	9	0

Shekel =219 Gr. Troy.		Shekel =4 Att. Drachm.		Roman Libra.	
lb. Troy.	decim.	lb. Troy.	decim.	lb. Troy.	decim.
1	0	1	0	1	0
2	0	2	0	2	1
3	0	3	0	3	2
4	0	4	0	4	3
5	0	5	0	5	4
6	0	6	0	6	5
7	0	7	0	7	6
8	0	8	0	8	7
9	0	9	0	9	8

MISCELLANEA.



SECTION VI.

THE PROPORTION OF THE DIAMETER TO THE CIRCUMFERENCE
OF A CIRCLE : THE AREA OF A CIRCLE AND ELLIPSIS : THE
SURFACE AND SOLIDITY OF A SPHERE.

Diameter : PERiphery :: 7 : 22 [Di : peri :: *p* : *ed*], or
:: 113 : 355, or more exactly, the Diameter : PERI-
PHERY :: 10.000,000 : 31.415,929.

Di : peri :: *p* : *ed* :: *bat* : *ilu* : Dia : priph :: *azmíl* : *ta-
fal-oudon*.

According to Van Ceulen, who carried the proportion
to six and thirty figures, which, in memory of so laborious
a work, were engraven upon his tomb at St. Peter's, in
Leyden, the Diameter : Periphery :: 2 .

Quintil.	Quadr.	Tril.	Bil.	Mil.	Un.
6,28,318.530,717.958,647.692,528.676,655.930,576.					

s, ektak, uüz-pap, nuk-sóp, sne-lek, aúps-sul, ouüz-lois.

The Diameter multiplied by 3.1416 gives the PERI-
PHERY [Diperi, *bobs* dat priph], consequently the peri-
phery divided by 3.1416 gives the diameter.

The AREA of a circle is given by multiplying the
SQUARE of the D-iameter into 0.7854.

Datur Area Squa-d per *y,peilo*.

The AREA likewise is given by multiplying the fourth
part of the Diameter into the Periphery—Ar= $\frac{r \cdot di}{4} + pe$.

The AREA of an ELLIPSIS is given by multiplying the rectangle of the TRANSverse and CONJUGate DIAMeters into 0·7854.

Area fit Ellips. Dia-tran-con-duct. in *y,peilo*.

The SURFACE of a sphere is given by multiplying the PERiphery into the D-iameter— $\text{Surf}=\overline{\text{pe}+\text{d}}$.

The SURFACE of a sphere is also given by multiplying the AREA of its largest circle into 4— $\text{Surf}=\overline{\text{are}+o}$.

The SOLidity of a SPHERE is given by multiplying $\frac{1}{4}$ of the RADIUS into the SURFACE— $\text{Sol-sphe}=\overline{\text{r}+\text{rad}+\text{sur}}$.

The Memorial Lines.

Di : peri :: p : ed :: bat : ilu. Dia : priph :: azmíl : ta
fal-oudou.

s, ektak, üz-pap, nuk-sóp, sne-lek, aúps-sul, ouüz-lois.

Diperi,bobs dat Priph. datur Area squa-d per *y,peilo*.

Area fit Ellips. Dia-tran-con-duct. in *y,peilo*.

$\text{Ar}=\overline{\text{r}+\text{adi}+\text{pe}}$, $\text{Surf}=\overline{\text{pe}+\text{d}}$, $\text{Surf}=\overline{\text{are}+o}$, $\text{Sol-sphe}=\overline{\text{r}+\text{rad}+\text{sur}}$.



THE QUANTITY OF VAPOURS RAISED OUT OF THE SEA,
ESTIMATED BY DR. HALLEY.

The MEDITerranean, supposed to be equal to 160 square DEGREES, is computed to yield in vapour, *per diem*, 5280 MILLIONS of T-ons—Med=dégbauz=lekymil-t.

The THAMES is computed to carry down in a day of 24 hours, into the sea, 20,300,000 TONS—Tham=ez-igthton.

The rivers (FLUVII) which run into the MEDITerranean, are computed to carry 1,827,000,000 T-ons, which is little more than $\frac{1}{3}$ of what is raised in vapour—Fluv-Med=aképmil-t.

The Memorial Line.

Med=dégbauz=lekymil-t. Tham=ez-igthton. Fluv-Med=aképmil-t.

The computations are made thus:

By experiments it appears, that each SQUARE F-oot of the surface of water yields in vapour, *per diem*, HALF a wine PINT—Squa-f=ha-pin.

Each space of four feet square (=16 SQUARE F-eeet) yields a GALLON—assqua-f=gal.

A MILE square, 6914 TONS—Mil=snafton.

A square DEGREE (of $69\frac{1}{2}$ English Miles) 33.000,000 TONS—Dég (misou) timton.

The Mediterranean=square 160 degrees=5,280.000,000 tons, as above.

The Memorial Line.

Squa-f=ha-pin, assqua-f=gal, Mil=snafton, Dég (misou) timton.

The quantity of water the Mediterranean receives from the rivers that fall into it, is estimated thus:

The most considerable rivers that run into the Mediterranean are the EBRO, the RHONE, the TIBER, the PO, the NILE, the DON or Tanais, the DANUBE, the NIESTER, the NIEPER or Borysthenes. Each of these is supposed to carry down ten times as much water as the Thames: not that any of them is so great, but so to allow for the small rivers that run into that sea. Now the water of the THAMES being computed at about 20.300,000 tons, as above, the nine rivers aforesaid each will amount to 203.000,000; in all, 1,827.000,000 T-ons.

The Memorial Lines.

Thám=ez-igth-t, Eb-Rho-Ti-Po, Nil-Don, Dan-Niest-Nieper-aképmil-t.

The water of the Thames is computed thus:

It is supposed to run at Kingston bridge, where the tide reaches not, at the rate of two miles an hour, which

is 48 miles in 24 hours; 48 Miles are equal to 48,480 Yards—*Mifk=Yako-feiz*; which, being multiplied by 300 Yards (the Profile of water at Kingston bridge, where it is supposed to be 100 yards broad and 3 deep), produces 25.344,000 cubic Y-ards of water—*Yako-feiz* per *ig=Yél-tfoth*; which are equal to 20.300,000 Tons — *=ez-igthton*.

The Memorial Line.

Mifk=Yako-feiz (Kin-prig) *Yako-feiz* per *ig=Yél-tfoth*
=ez-igthton.



THE VELOCITY OF SOUND, LIGHT, &c.

A cannon bullet (GLOBUS tormento bellico emissus) IN a SECOND, moves 204 YARDS—In-sec Glob-yarezo.

Light (LUMEN) in a second moves 200,000 MILES—Lu-milegth.

Sound (SONUS) moves in a second 1142 feet (PEDES)—Son-ped-movetabfe.

A cannon bullet moves a M-ile in 17 HALF SECONDS—Glob-m-ápha-sec.

Sound moves a mile in 9 half seconds $\frac{1}{2}$ —Sonn,ro.

A cannon bullet would be in moving to the Sun (AD SOLEM) $32\frac{1}{2}$ years—Ad-Sol-glob=án-te, re.

Sound would be in moving to the Sun 17 years—Sonap.

The descent of heavy bodies (DESCENSUS GRAVIUM) is 16 F-eeet $\frac{1}{17}$, or an inch, in a SECOND—Des-gravi-sec = *Fas,rad*; and in more seconds as the squares of those times.

A PENDULUM of 39 INCHES 2 tenths [Pendulum Intou,d] OSCILLATES or vibrates SECONDS—Oscil-Sec-Pendulum-intou,d.

The Memorial Lines.

In-sec Glob-yarezo, Lu-milegth, Son-ped-movetabfe.

Glob-m-ápha-sec, Sonn,ro, Ad-sol-glob=án-te, re, Sonap,
 Des-gravi-sec=*Fas,rad*, Oscil-sec-Pendulum-intou,d.

THE JEWISH MONTHS.

Nisan or Abib	* <i>March</i>
Zif or J-air	<i>April</i>
Sivan	<i>May</i>
THAMUZ	<i>June</i>
AB	<i>July</i>
ELUL	<i>August</i>
TIZRI or ETHEDIM	<i>September</i>
BUL or M-erchesvan	<i>October</i>
CHISLEU	<i>November</i>
THEbeth	<i>December</i>
SHEbeth	<i>January</i>
Adar or Veadar	<i>February</i>

The Memorial Lines.

Nis-Abi*Mar*, Zif-J*Ap*, Si*Ma*, Thám*Jun*, Ab*Jul*, Elúl*Aug*,
Tizr-Ethe*Sep*, Bul-M*Oc*, Chisleu*N*, The*De*, Sheb*Jan* &
Ad*Feb*.

THE GRECIAN MONTHS.

Ἑκατομβαιῶν	<i>June</i>
ΜΕΤΑΓΕΙΤΝΙῶν	<i>July</i>
ΒΟΗΔΡΟΜΙῶν	<i>August</i>
ΜΑΙΜΑΚΤΗΡΙῶν	<i>September</i>
ΠΥΑΝΕΨΙῶν	<i>October</i>
ΠΟΣΕΙΔΕῶν	<i>November</i>
ΓΑΜΗΛΙῶν	<i>December</i>
ἈΝΘΕΣΤΗΡΙῶν	<i>January</i>
ἙΛΑΦΗΒΟΛΙῶν	<i>February</i>
ΜΟΥΡΥΧΙῶν	<i>March</i>
ΘΑΡΓΗΛΙῶν	<i>April</i>
ΣΚΙΡΡΟΦΟΡΙῶν	<i>May</i>

The Memorial Lines.

Hec*Ju*, Metageí*Jul*, Boedr*Aug*, Mai*S*, Púan*O*, Pos*Nov*,
Gam*Decem*, Anthes*Jan*, Ela*Feb*, Mou*M*, Thargeí*A*,
Skir*Ma*.

* i. e. part of March and part of April, and so of the rest.

Note, That the Athenians began their year from the new moon, whose full was next after the summer solstice, which was at first reckoned to be upon the 8th of July, after on the 27th of June. Vide *Beveregii Chron. Instit.* lib. i. cap. 12.

JEWISH AND CHRISTIAN ERA OF THE CREATION.

Both Jewish and Christian writers make use of the era of the creation of the world; but there is great variety of opinions concerning the number of years between that and the birth of Christ. That which is most generally received is, that the first year of the vulgar Christian era commences from the day of his circumcision, viz. the first of January, in the year of the world 4004, and of the Julian period 4714. The Jews place the creation of the world *later* by about 243 years; and the Greek historians, upon the authority of the Septuagint, *sooner* by about 1490 or 1500 years; so that

Oct. 7	$\left\{ \begin{array}{l} \text{of the} \\ \text{first} \\ \text{year} \\ \text{of the} \\ \text{Christian} \\ \text{era} \end{array} \right\}$	began	$\left\{ \begin{array}{l} \text{the 3762d year of the} \\ \text{Jewish era} \\ \text{the 5494th of the GREEK} \\ \text{Ecclesiastical era} \\ \text{the 5509th of the GREEK} \\ \text{CIVIL era} \end{array} \right\}$
Aug. 27			
Sept. 1			

The Memorial Line.

Christ=*mundothf*, Jud=*ipaud*, Grec-ecc=*lonf*, Grec-civil=*ulzon*.

THE DAYS* OF THE MONTH ON WHICH THE OTHER NOTED EPOCHAS BEGAN.

	Bef. Christ.
The destruction of TROY	June 16. 1183
† The first OLYMPIAD	June 19. 776
The building of Rome	April 21. 753

* For the years, see page 7.

† The last day of the Olympic games was upon the full moon immediately after the summer solstice.

		Ref. Christ.	
*Era of NABONASSAR	Feb.	26.	747
The PHILIPIC era	Nov.	12.	324
Era of CONTRACTS	Oct.	1.	312
The VICTORY at ACTIUM	Sept.	2.	31
		An. Dom.	
The DIOCLESIAN era	Aug.	29.	284
The MAHOMETAN era	July	16.	622
The era of YEZDEGIRD	June	16.	632

The Memorial Lines.

Mund=Octoi, Oly-Jan, Phil-Nad, Nab-Fés, (*bosa*)
 Ro-pda,
 Yez-Troy-Jas, Maho-las, Dio-gen, Vict-Acta-Se, Con-ta.

THE SPECIFIC GRAVITIES OF SOME METALS AND OTHER BODIES.†

		Ounces Troy.	decim.
A cubic inch of	† Fine Gold— <i>Aur=az,iloud</i>	= 10	·359273
	Fine Silver— <i>Arg=l,eil</i>	= 5	·850035
		Ounces Averd.	decim.
	Lead— <i>Plum=s,lutkul</i>	= 6	·553855
	Common Iron— <i>Fer=f,oden</i>	= 4	·422979
	Fine MARBLE— <i>Mar=b,laukk</i>	= 1	·568859
	Common GLASS— <i>Vitru=b,oniz</i>	= 1	·493037
	Com. clear WATER— <i>Aqua=b,loiksoup</i>	= 1	·578697
	Sound dry OAK— <i>Robo=lislaun</i>	= 0	·536569
	OIL OLIVE— <i>Ol-Ole=,lektuz</i>	= 0	·528350

The Memorial Lines.

Aur=az,iloud, Arg=l,eil, Plum=s,lutkul, Fer=f,oden,
Mar=b,laukk,
Vitru=b,oniz, Aqua=b,loiks, Robo=lislaun, Ol-Ole=
,lektuz.

* The Nabonassarean years, not admitting any intercalary day, began, after every four years, a day sooner, and in 1461 years (*bosa*) went back throughout the whole Julian year, and began on the same day again.

† See Ward's Mathematician's Guide, part i. chap. 10.

‡ The beginning of the *technical* words is from the Latin word for each.

NUMERUS DIGNITATUM, &c. TEMPORE CAMDENI.

*SUNT in Anglia DECANatus 26, ARCHidiaconatus 60, Dignitates & PRÆbendæ 544, Ecclesiæ PAROCHIALES 9284 e quibus 3845 sunt APPROPRIATÆ. In libro tamen Thomæ Wolsæi Cardinalis descripto 1520, per comitatus numerantur ecclesiæ 9407.

The Memorial Line.

-Sunt Decanes, Archdauz, Præbłf, Parochoudeif, Apprikfu.



THE TEMPLE OF THE EIGHT WINDS, MENTIONED IN
DR. POTTER'S ARCHÆOLOGIA.

Εὐρος	EURUS	S-outh E-ast.
Ἀπὴλιώτης	SUBSOLANUS	E-ast.
Κακίας	CÆCIAS	N-orth E-ast.
Βορέας	BOREAS	N-orth.
Σκίρον	CORUS	North W-est.
Ζέφυρος	OCCIDENS	W-est.
Νότος	NOTUS	S-outh.
Αΐψς	AFRICUS	South W-est.

The Memorial Line.

Cæci=NE, Σκλ-Cor=NoW, Eû=SE, Α-Af=SoW,
Bór=N, Ἀπ=E, Not=S, Z-O=W.

ACCORDING TO AULUS GELLIUS, THE WINDS ARE THUS DISTINGUISHED:

Septentrio	Ἀπαρκτίας	North.
Eurus	SUBSOLANUS	East.
Auster	NOTUS	South.
Favonius	Zephyrus	West.
Boreas	Aquilo	North East.
Vulturnus	Euronotus	South East.
Caurus	Ἀργεστής	North West.
Africus	Libs	South West.

ROMAN MILITIA.

A LEGION	=	10 Cohorts.
A COHORT	=	3 MANIPULI.
A MANIPULUS	=	2 ORDINES.
A TURMA	=	3 DECURIOS.

10 TURMÆ were the *justus equitatus*, or horse belonging to a Legion.

The Memorial Line.

Legi=Coaz, Coho=Mant, Manip=Ord, Turm=Décuri,
Taz-Le.

ROMAN LAW.

Primus fundus Jurisprudentiæ Romanæ, LEGUM REGIARUM fragmenta, (quæ a Sexto PAPIRIO olim in unum corpus collecta fuerant) sc. trium Regum Romuli, NUMÆ et SERVII TULLII; secundus, leges 12 TABULARUM; tertius, EDICTUM PERPETUUM quod (ADRIANI Imp. Autoritate) a SALVIO JULIANO conditum atque in titulos digestum.

Codex Justinianus compositus ex codicibus Gregoriano, Hermogeniano atque Theodosiano, novellisque post eos positis constitutionibus.

GREGORIANUS et HERMOGENIANUS nominantur ab authore. Prior codex ab ADRIANO ad VALERIUM latas leges continebat, secundus a CLAUDIO ad DIOCLETIANUM; THEODOSIANUS leges CONSTANTINI ad THEODOSIUM. NOVELLÆ a THEODOSII temporibus ad JUSTINIANUM.

The Memorial Lines.

Leg-reg (Pap) Ro-Nu-Serv, Tabulad, Ed-perp (Adri)
Salv-Jul.

Greg=A-Val, Herm=Clau-Di, Theo=Const-The, Nov
=Theo-Justin.

The first CODE of Justinian was published *anno* 529, the DIGESTS *anno* 531, the INSTITUTE *anno* 533, the SECOND CODE *anno* 534, the NOVELLS from the year 535 to 558.

The Memorial Line.

Cod-prilen, Diglib, Instlit, Co-selif, Novelil-luk.

THE BISHOPS* WHO REFUSED THEIR ASSENT TO THE
Ὁμοούσιον.

Eusebius, bishop of NICOMEDIA.

THEOGNIS, bishop of NICE.

MARIS, bishop of CHALCEDON.

THEONAS, bishop of MARMARICA.

SECUNDUS, bishop of PTOLEMAIS.

The Memorial Line.

Eu-Nico, Theog-Ni, Mar-Chal, Sec-Ptol, Theo-Marmar.

THE TEN PERS-ECUTIONS UNDER

NERO, DOMITIAN, NERVA, ANTONINUS PIUS, SEVERUS,
MAXIMIN, DECIUS, VALERIAN, AURELIAN, DIOCLESIAN.

The Memorial Line.

PERS = Ne-Do-Nerv-AntPi-Sev-Max-De-Val-Aure-
Diocles.

THE ELECTORS OF GERMANY

Were the Archbishop of MENTZ, TRIERS, and Cologne,
Elector Palatine of the RHINE, the King of BOHEMIA,
the Electors of BAVARIA, SAXONY, BRANDENBURG; the
Elector of HANOVER was added, *Anno Dom.* 1693.

The Memorial Line.

Men-Trí-Co-Rhin-Bohe-Bav-Sax-Branden; Hanover
ad sout.

* Ταύτην τὴν πίστιν τριακόσιοι μὲν πρὸς τοὺς δεκαοκτὼ, ἔγνωσάν τε καὶ ἔστερξαν· καὶ ὡς φησὶν ὁ Εὐσέβιος, ὁμοφωνήσαντες καὶ ὁμοδοξήσαντες ἔγραφον· πέντε δὲ μόνοι οὐ προσεδέξαντο, τῆς λέξεως τοῦ ὁμοουσίου ἐπιλαβόμενοι. Εὐσέβιος ὁ Νικομηδείας, δ'c.-*Socratis Historia Ecclesiastica*, lib. i. cap. 8.

THE QUINQUARTICULAR CONTROVERSY, CONCERNING

1. PREDESTINATION. 2. Free-will (LIBERUM ARBITRIUM).
3. The force of Divine Assistance (AUXILIUM).
4. PERSEVERANCE. 5. The extent of REDEMPTION.

The Calvinian doctrine upon these points, handed from Geneva by the English refugees, and propagated by CARTWRIGHT in the Margaret professor's chair at Cambridge, was, at a consultation of several prelates and divines at Lambeth, digested into nine articles, commonly called the LAMBETH ARTICLES, and agreed upon N-ov. 10, 1595—*Naz-aloul*; but, by order of Queen Elizabeth, were immediately recalled and suppressed.

The Memorial Line.

Lamb-Art=Cart-Naz-aloul, Predés-Liber-Auxili-Pers-Red.



THE SEVEN PRECEPTS (SEPT-EM PRÆCEPT-A) OF THE SONS OF NOAH ARE RECORDED BY THE JEWISH DOCTORS UNDER THE FOLLOWING TITLES:

- I. To worship the true God (*CULTUS divinus*).
- II. To renounce IDOLATRY.
- III. To commit no murder (*CÆDES*).
- IV. Not to be defiled with fornication, &c. (*STUPRUM*).
- V. To avoid all rapine, theft, &c. (*FURTUM*).
- VI. To administer justice (*JUSTITIA*).
- VII. Not to eat the flesh with the blood (*SANGUIS*).

Such Gentiles as were admitted to the worship of the God of Israel, and the hope of a future life, but were not circumcised, nor yet conformed to the Mosaical rites, being only obliged to the observation of the foregoing precepts, were called proselytes of the gate, in opposition to the proselytes of righteousness, or of the covenant, who differed nothing from the Jews, but that they were of Gentile race. See Lewis's Hebrew Antiquities.

The Memorial Line.

SEPT-PRÆCEPT=Cul-Idol-Cæd-Stup-Furt-Jústiti-Sanguis.

MISNAH, GEMARAH, TALMUD.

The MISNAH in 6 B-ooks [Misna-bs] contained 63 Tracts [Traut], into which the traditions or oral law of the Jews were methodically digested by Rabbi Judáh HAKKADOSH in the time of ANTONINUS P-ius—Hakad-AnP. As soon as it was published, it became the subject of the study of all their learned men, and the chiefest of them, both in Judæa and Babylonia, employed themselves to make comments upon it; and these, with the Misnah, make up both their Talmuds, *i. e.* the Jerusalem Talmud and the Babylonish Talmud. These comments are called the GEMARAH or complement, the MISNAH the text; both together the TALMUD—Tal=Mís-Gema. The JERUSALEM TALMUD was completed about A. D. 300—Tál-Jerig. The B-abylonish TALMUD about 500, or in the beginning of the sixth century—Tal-Bug. This latter is only in esteem among the Jews. See *Prideaux's Connexion*, p. 328.

The Memorial Line.

Misna-bs-Traut-Hakad-AnP, Tal=Mís-Gema, Tál-Jerig, Tal-Bug.

CHARACTERS ARITHMETICI GRÆCI ET HEBRAICI.

Ab-βέ-γι-δο ευ-σται ζοι-ηκ-θου-ια κέζ-λι-μο νυ-ξαν.
 Op-πει του ρά-σε-τι υφ-φν-χαι, ψοι-ωμει σαρου.
 אב-בֶּ-גִי-דוּ הוּ-טוּ יוֹי חֵק טוֹן יוּ כֶּז-לִי-מֹו נֻ-צָאן.
 υρ-πει του ρα-ρε-ωι ηφ-ην-ου ιοique ηει του.

The decads and hundreds will be easily distinguished from each other, and therefore only the first figure is added, *λι* sc. *λ*=3, *i. e.* 30; *ρε* sc. *ρ*=2, *i. e.* 200. Pronounce *του* kopou, *σαρου* sanpou, *ηφ* thauf, *του* tsadou.

THE AGES OF CHRISTIANITY AS DISTINGUISHED BY DR. CAVE,
ACCORDING TO WHAT WAS MOST REMARKABLE IN EACH
CENTURY.

Cent.	I.	Sæculum Apostolicum.
Cent.	II.	Sæculum G-nosticum.
Cent.	III.	Sæculum Novatianum.
Cent.	IV.	Sæculum Arianum.
Cent.	V.	Sæculum Nestorianum.
Cent.	VI.	Sæculum Eutychicum.
Cent.	VII.	Sæculum Monotheliticum.
Cent.	VIII.	Sæculum Eiconiclasticum.
Cent.	IX.	Sæculum Photianum.
Cent.	X.	Sæculum Obscurum.
Cent.	XI.	Sæculum Hildebrandinum.
Cent.	XII.	Sæculum Waldense.
Cent.	XIII.	Sæculum Scholasticum.
Cent.	XIV.	Sæculum Wicklevianum.
Cent.	XV.	Sæculum Synodale.
Cent.	XVI.	Sæculum Reformatum.

The Memorial Line.

Ap-G-Nov Ari-Nest Eut-Monoth Eic-Phot-Ob Hil-
Wa-Scho Wick-Sy-R.

THE DIVISION OF THE ROMAN EMPIRE OUT OF THE BOOK
CALLED NOTITIA IMPERII, SAID TO BE WRITTEN ABOUT THE
TIME OF ARCADIUS AND HONORIUS.

The whole empire was divided into 13 Dioceses, under
4 PRÆfecti PRætorio, and about 120 PROVINCES con-
tained in them—PRæf=dibi=pradz.

1. The *Præfectus Prætorio* ORIENTIS, and under him
five dioceses, viz. the Oriental, E-gyptian, Asiatic, Pon-
tic, and THRACIAN dioceses—Or=E-As-Po-Th.

2. The *Præfectus Prætorio* of ILLYRICUM, and under him
two dioceses, viz. MACEDONIA and D-acia—Ill=Ma-D.

3. The *Præfectus Prætorio* of Italy, and under him three dioceses, viz. Italy, Illyricum, and Africa—It=It-II-Af.

4. The *Præfectus Prætorio* G-alliarum, and under him three dioceses, viz. Hispania, Gallia, and B-ritannia—G=His-Ga-B.

The Memorial Line.

Præf=dibi=pradz, Ill=Ma-D, Or=E-As-Po-Th, It=It-II-Af, G=His-Ga-B.

THE DIMENSIONS OF THE ARK AND TEMPLE.

The length (Longitudo) of the ARK, 300 CUBITS—Ark-lo-cubig; the Breadth 50 cubits; the height (Altitudo) 30 cubits—Bruz-aliz.

The length of the Temple which King Solomon built for the Lord was 60 cubits, the Breadth thereof 20 cubits, and the height thereof 30 cubits (1 *Kings* vi. 2)—Tem-lónsy-brez-alty. The length of the Porch 20 cubits, the height thereof 120 cubits (2 *Chron.* iii. 4)—Porez-bez.

The Memorial Line.

Ark-lo-cubig-bruz-aliz, Tem-lónsy-brez-alty, Porez-bez.

COMPUTATION OF THE COST, VESSELS, VESTMENTS, &c. OF SOLOMON'S TEMPLE.

By Villalpandus's computation of the number of Talents of gold, silver, and brass, laid out upon the Temple, the sum amounts to 6904.822,500*l.* sterling—Tal-tem=souzo-*ked-ug*. And the jewels are reckoned to exceed this sum.

Vessels of gold (Vasa AUREA) consecrated to the use of the Temple, are reckoned by Josephus 140,000—Vas-aureabózh; which, according to Capel's reduction of the tables contained in them, amounts to 545.296,203 pounds sterling—lol-enáu-dyt.

The vessels of silver (Vasa ARGENTEA) 1,340,000 [Vas-áratózh] are computed at 439,344,000*l.*—*fin-tofth.*

Priests' vestments of silk (VESTES SERICÆ) 10,000—Vest-sericazth.

Purple vestments for singers 2,000,000—Pem; Trumpets 200,000—Tregth; other musical INSTRUMENTS 40,000—Instroz.

Besides these charges, there was that of the other materials, and of 10,000 men per month in Lebanon to hew down timber (SYLVICIDÆ)—Sylvicidaz. To carry burthens (VECTORES) 70,000—Vectoiz. To hew stones (LAPICIDINÆ) 80,000—Lapiky; and 3,300 overseers (EPISCOPI)—Episcoptig; who were all employed for 7 years (ANNIS SEPTEM), to whom, besides their wages and diet, Solomon gave a free gift 6,733,977*l.* (DONUM SOLOMONIS)—*s-paut-noip.* The treasure left by David towards carrying on this work (RELIQUIT DAVID) 911,416,207*l.*—*nab-oás-dyp.*

N.B. *th* is left out, as Sylvicidaz for Sylvicidazth, &c. it being impossible to mistake 10,000 for 10.

The Memorial Lines.

Tal-tem=*sonzo-ked-ug*, Vas-aureabózh=*lol-enáu-dyt*, Vas-áratózh=*fin-tofth*, Tregth, Instroz, Vest-sericáz, Pem. An-sept Sylvicidaz, Lapiky, Vectoiz, Episcoptig, Don-Solomo-*s-paut-noip*, reliquit Dav-*nab-oás-dyp.*

The number of those that returned (REDUCES) from the captivity were 42,360—Redufe-*tauz*; besides PROSELYTES 7,337—Proseloitip.

The particular sums in EZRA'S CATALOGUE amount to 29,828—Cat-Ezdou-*kek.*

The particular sums in NEHEMIAH'S CATALOGUE, 31,031—Cat-Nehetazib. How these accounts are reconciled, see the Index to the Bible.

The Memorial Line.

Redufe-*tauz*-Proseloitip, Cat-Ezdou-*kek*, Cat-Nehetazib.

The SILVER of them that were numbered of the CONGREGATIONS was a hundred TALENTS, and a thousand seven

hundred and threescore and fifteen SHEKels after the shekel of the sanctuary, a BEKah for every man, that is, half a shekel after the shekel of the sanctuary, for every one that went to be numbered, from twenty years old and upwards, for six hundred thousand and three thousand and five hundred and fifty men. *Exod xxxviii. 25, 26.*

The Memorial Line.

Sil=Con=Talg-shékapoil, Beksyt-luz=Shekelizappu.



DIFFERENCE OF TALENTS.

	Attic Minas.	Attic Drachms.
A SYRIAN Talent contained	15	1500
A PTOLEMAIC Talent	20	2000
An EUBOIC Talent	60	6000
An ALEXANDRIAN Talent	120	12000
An ANTIOCHIAN Talent	60	6000
A larger ATTIC Talent	80	8000
A BABYLONISH Talent	70	7000
An ÆGINEAN Talent	100	10000
*A RHODIAN Talent	100	10000
A TYRIAN Talent	80	8000
An EGYPTIAN Talent	80	8000

The Memorial Lines.

Tal-Syr=Mal, Ptolem=ez, Eub=auz, Alexan=bez &
 Ant=auz,
 Att-maj=eiz, Babyl=oiz, Ægin=ag, Rh=ag, Tyr-
 Egypt=eiz.

I shall conclude with two lines, just to show how, by this method, may be remembered the year and chapter of

* According to some, the Rhodian talent contained but 4500 Attic drachms, and the Euboic but 4000. *Vide Brerewood de Ponderibus et Pretiis, cap. 9.*

any particular statute. Those to whom a hint of this nature may perhaps be thought useful, are best capable of applying and improving it as they shall see occasion.

An Act for prevention of FRAUDS and Perjuries, 29 CAROL. II. c. 3.—*Fraud-Carolen-t*.

An Act against abuses in presentation to benefices (SIMONY) 31 ELIZ. c. 6.—*Sim-Elib-s*.

The Bill for first fruits (PRIMITIÆ) 26 H-en. VIII. c. 3.—*Primit-Hes-t*.

An Act for the dissolution of MONASTERIES.

The lesser 27 H.VIII. c. 28

The greater 31 H.VIII. c. 11 } —*Monast-Hep-ek, ib-ba*.

The Memorial Line.

Fraud-Carolen-t, Sim-Elib s, Primit-Hes-t, Monast-Hep-ek, ib-ba.

To remember the several statutes relating to the same subject must needs be more difficult, as there is but one leading syllable for the whole line; but may be done in the following manner:

Some of the principal acts which relate to the poor (PAUPERES) are 43 ELIZ. c. 2. 13, 14 CAR. II. c. 12. 3, 4 WILLIAM and M-ary, c. 11. 8, 9 WILL. III. c. 30. 9, 10 WILL. III. c. 11 12 ANN, c. 18.

The Memorial Line.

Paup-Elot-e, Carat-ad, Wi-Mt-ab, Wilk-iz, n-ab, Anad-bei.

LOWE'S MNEMONICS.

DR. WATTS, in his Essay on the Improvement of the Mind, near the conclusion of the 17th chapter, where he more especially treats of Improving the Memory, makes the following observation:

“ Dr. Grey, in his book called *Memoria Technica*, has “ exchanged the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, for “ some consonants, b, d, t, f, l, s, p, k, n, z, and the “ vowels a, e, i, o, u, y, with several diphthongs, and “ thereby formed words that denote numbers, which may “ be more easily remembered: and Mr. Lowe has im- “ proved Dr. Grey’s scheme in a small pamphlet called “ *MNEMONICS DELINEATED*, whereby in a few leaves “ he has comprised almost an infinity of things in science “ and common life, and reduced them to a sort of mea- “ sure like Latin verse.”

Under sanction of the great authority above quoted, the publisher of the present edition has annexed Mr. Lowe’s tract, which the author originally intended both as a supplement to and an improvement of Dr. Grey’s method; accordingly asserting in his advertisement, that “ most of the articles are what perhaps did not occur to “ Dr. Grey; and the rest are reformed to good purpose, “ particularly those of Weights, Coins, and Measures, of “ which I have given a full account in less than eight “ pages, whereas the Doctor’s, though very defective, “ amounts to twenty-eight.”

The two schemes are now before the reader, to use whichever seems best; and though Mr. Lowe's is, in some instances, little more than a repetition of Dr. Grey's plan, yet it has been thought advisable to reprint the whole at full length, and even to follow his peculiar mode of spelling, as most consistent with brevity. It may also be necessary to premise, that Mr. Lowe's astronomical calculations are according to the old style, and his geographical divisions are as they existed in the year 1737, the time when his pamphlet was first published; which disagreement with the present period it is hoped the industry and sagacity of the learner can easily rectify, by composing new technical words, which may be more easily remembered than those formed by another; these works being originally designed more as specimens of what might be done by attention, than as complete sets of tables in the various branches of learning and science.

THE KEY.

DIRECTIONS FOR THE BETTER LEARNING TO REMEMBER
FIGURES OR NUMBERS EXPRESSED BY LETTERS.

<i>a</i>	<i>e</i>	<i>i</i>	<i>o</i>	<i>u</i>	<i>au</i>	<i>oi</i>	<i>ei</i>	<i>ou</i>	<i>y</i>
1	2	3	4	5	6	7	8	9	0
<i>b</i>	<i>d</i>	<i>t</i>	<i>f</i>	<i>l</i>	<i>s</i>	<i>p</i>	<i>k</i>	<i>n</i>	<i>z</i>

g 100, *th* 1,000, *m* 1,000,000.

r denotes fractions, as follows; *ro* $\frac{1}{4}$, *iro* $\frac{3}{4}$, *d,eri* $2\frac{2}{3}$,
rag .01.

ARITHMETIC.

ARITHMETICAL CHARACTERS.

+ and; - less; \times multiplied-into; \div divided-by,
= is, gives.

THE DIVISION OF THE OLD ROMAN AS, VIZ. ANY INTEGER
OR WHOLE.²

Uncia. Sext. Quā. Triens. Quinc. Sem. Sept. Bes.
Dōdrā. Dext. Deu.

As, parts 12	Semissis 6
Deunx 11	Quincunx 5
Dextans 10	Triens 4
Dodrans 9	Quadrans 3
Bessis 8	Sextans 2
Septunx 7	UNCIA 1

COINS.

COINS REDUCED TO FARTHING.

- 1 E.]³ Sh-ok. Cr-ěfy.] N-idz. Ange-okz. M-ăufy.
Gui-bzyk. Car-băzo. Jac-beg.
 - 2 H. Ger-f.] Bě-ř. Sh-abz. *Man-sups. †Tal-ideith
feil.] Sh-aplē. Tal-um dusth.
 - 3 G. Lep-,tăřitan. Dĭchăl-a,prěf. ōb-u,rau.] *Dr-ib.
‡Stătěr-ado.
 - 4 R. T,oipĭrăth. §As-t,raz.] Ses-p,irf. V-al,rě.
Dĕn-ib. Sp-oĭl.] Aür-oipu.
- * } Proportions. { DRACHM.] Hĕb-ĭs. Att-tĭ. Alex-oid—MIN.]
† } { Att-tig. Ităl-ekeiz.
‡ } { TAL.] Att-boukth. Băb-ĕtath.] Att-ĭbauth
eig. Băb-ĭm-ăunsth. R-akyth.
§ } { STATER (gold) Att-poil. Cyz-Phĭl-Alex-dap.
Croes-Dăřĭ-buly.
§ } { As weighed Ouncĕs-ad, U-C-bouz': e; fouz':
a; ĭp; -ăre; ĭeis.

MONEY.

SUMS OF MONEY, OR MONEY OF ACCOUNT.

- 5 { (E) Penn-f. Gr-as. Pound-ousy. (G) TAL.
MIN. Ægĭ-g=ubss. ⁵Ant-sy=g.

- 6 { Bab-oi=*tuns*. Pt-az=*aztī*. Sŷr-al=*poil*. Tyrian-
 { eiz=*fatt*.
 7 { (R) SESTERCE—tŷ-ath, duo, bini nummi—
 { tŷ-am, duo, bina,
 8 { —stertia: or millia sestertiūm,—above, by the
 { adverbs, as follows:
 9 { Bis sestertiūm, or bis; understanding millia centum
 { (or centena).

Abbreviatures explained.⁶

Æginéa mina, talentum, (lin.) 5. *Alexandrina* drachma, *; stater, †. *Angel*, 1. *Antiochica* min. tal. 5. *As*, 4, §. *Attica* drachma, *; mina, *; stater, †; talentum, †. *Aureus* denarius, 4. *Babylonica* min. tal. †. *Bekah*, 2. *Carolus*, 1. *Cræsius* stater, †. *Crown*, 1. *Cyzicénus* stater, †. *Darius* stater, †. *Denarius*, 4. *Dichalcos*, 3. *Drachma*, 3. *Gerah*, 2. *Groat*^c, 5. *Guinea*, 1. *Hebraica* drachma, *. *Jacobus*, 1. *Italica* mina, *. *Lepton*, 3. *Maneh*, 2. *Mark*, 1. *Mina*^c, *, 5. *Noble*, 1. *Obolus*, 3. *Penny*^c, 5. *Philippicus* stater, †. *Pound*, 5. *Ptolemaica* min. tal. 6. *Románium* talentum, †. *Sestertium*, 7. *Sestertius*, 4. *Shekel*, 2. *Shilling*, 1. *Sportula*, 4. *Stater*, 3. *Syria* min. tal. 6. *Talentum*^c, 2, 5. *Teruncius*, 4. *Tyria* min. tal. 6. *Victoriátus*, 4.

Synonyms and Equivalents.^c

Æs, as. *Assarium*, as. *Attica minor mina*=antiochica. *Attica major mina*=tyria. *Bigátus*, denarius. *Centussis*, 100 asses. *Chalcos*, $\frac{1}{2}$ dichalcos. *Decussis*^c, 10 asses. *Didrachmon*, 2 drachmæ. *Diobolon*, 2 oboli. *Dupondius*^c, 2 asses. *Eubæa mina*=antiochica. *Hemiobolon*, $\frac{1}{2}$ obolus. *Laureat*, carolus. *Libella*, as. *Libra* (or libra pondo)=mina attica. *Mna*, mina. *Nonussis*, 9 asses. *Nummus*, sestertius. *Obolus*, $\frac{1}{2}$ noble. *Octussis*, 8 asses. *Pentadrachmon*, 5 drachmæ. *Pondo*, v. libra. *Quadrans*,

$\frac{1}{4}$ as, $\frac{1}{4}$ noble. Quadrigátus, denarius. *Quadrussis*^c, 4 asses. Quinarius, victoriátus. *Quinquessis*^c, 5 asses. *Rhodia* = ægina. Sembella, semilibella. Semilibella, $\frac{1}{2}$ libella. *Semuncia*, $\frac{1}{2}$ uncia. Sescuncia, $1\frac{1}{2}$ uncia. *Sextans*^c, $\frac{1}{6}$ as. *Sextula*^c, $\frac{1}{6}$ uncia. Solidus, aureus. Tetradrachmon, 4 drachmæ. Tetrobolon, 4 oboli. *Tressis*, 3 asses. *Tricessis*, 30 asses. Tridrachmon, 3 drachmæ. *Treins*^c, $\frac{1}{3}$ as. Triobolon, 3 oboli. *Vigessis*, 20 asses. *Uncia*^c, $\frac{1}{12}$ as.

1. N. B. The several *coins, measures, and weights*, being reduced to the lowest denominations, the memorial verses answer all the purposes of the largest tables: (1) The difference of any two terms being known by subtraction^a: and (2) How many of any make one of another, by division^b.—e. g. (a) What is the difference between a *Shilling* and a *Shekel*? Answ. (Sh-ab:) 110—(Sh-ok) 48 = 62 q. i. e. S 2 : 3 : 2—S 1 = S 1 : 3 : 2, the shekel more than the shilling. (b) How many *Spans* make a *Fathom*? Answ. (Fath-oid) 72 ÷ (Spa-n) 9 = 8. Accordingly, if it be asked, *What is a Fathom*? (and so of any other) the answer may be made the same way, in any of the prior denominations: e. g. 24 palms, or 6 feet, or 4 cubits, or 2 yards, or $1\frac{1}{2}$ pace, &c.

2. Any whole was called AS, and 1 twelfth of it UNCIA [whence our terms of *ounces* for weight, and *inches* for length]. The several numbers of those uncia (between 1 and 12)—were denominated, in order, as follows in text: viz. Sextans (i. e. $\frac{1}{6}$) 2 Quadrans ($\frac{1}{4}$) 3, &c.—and express their manner of reckoning *Interest* of money: thus *usuræ asses* [centesimæ] was 1 per month [12 per year] per cent. (suppose aurei, or pounds:) *denunces*, 11 twelfths per month, and so on to *unciariæ*, 1 twelfth per month [1 per year] e. g. 20*d.* per month, 20*s.* per year.

3. Of the three apartments distinguished by brackets, in the 1st are Brass- or Copper-; 2d, Silver-; 3d, Gold-coins.—N. B. (1) Sh-ok (as appears by the Abbreviatures explained underneath, and by the key above) signifies *Shilling* 48: i. e. a shilling is 48 farthings; and so of the rest. (2) *y* (the memorial letter) may be pronounced *nee* or *wi*, to distinguish it from *i*; e. g. Cr-*efy*, as if it were Cr-*efwi*.

4. i. e. in the year (*Urbis Condita*) from the building of the city of Rome, 190—C-*fouz*; i. e. U. C. 490, when the Punic war had exhausted the treasury, it weighed but 2, and so of the rest.

5. i. e. the Ægeian *mina* was (ubss) 5656 q : (g) 100 of which made the Ægeian *talent*. And so of the rest.

6. N. B. In these lists, those in *Italic* are moneys of account ; the rest, coins. The *Figures* and *Marks* refer to the corresponding memorial verses.

(c) N. B. There are also COINED Half-guineas, Seven-shilling pieces, Half-crowns, Threepences, Twopences, Halfpence, and such as are distinguished by a superior ¢.

MEASURES.

CUBIC MEASURES REDUCED TO PINTS.

- 1 { Quar-d. *Gal-k. R-afš. Bar-eld. Ti-(WINE) tts.
H-uzf. P-aŭpě. B-athei. T-ethbau.
- 2 { Firk-boïd, ásf.¹ Kíl-äbek, baff (BEER & ALE).
Bar-bdeïk, ädus. Hög-äläd, bups.
- 3 { Pe-bs. Bü-so. Str-ack. Coom-dus (DRY). Se-äbě.
Ch-etzo. We-ithpě. Lă-lady.
- 4 { (liq.) C-,urei. L-irő. Căb-i. H-az (H). Seäh-dj.
Bath-sj. Höm-auzu (-uid).
- 5 { Cab-,duran. Göm-,ŭraz. Se-boi (DRY). Bă-lă.
Le-dlaŭ. Hömer-lat.
- 6 { Coch-,rădj. Ch-rauz. Myst,rok (G). Conch-,raf.
Oxybă-,reï. Metr-eis.
- 7 { Coch-,rădj. Choen-brě. Mědim-pě (DRY). Cj-
Ox-Cötj-Xest-as the Roman.
- 8 { Quart-,rő. Sě-a,rl. Cö-p. Ur-ek-ră (R). Quă-
dr-up. Cŭlě-bafp. Lj. Cj. Ace. Hem.
- 9 { Lig-,rok. Cy-,rad. Acet-,reï. Hěm-(DRY) in,rě.
Sě-a,rŭ. †Mod-as,re.
- 10 { *GALLŌN cōtains inches (dry) doid,rő : (beër)
- kě : (wine) eta³.
- 11 { †PE T TLE Quărts (dr-) i (liquid)-e — †MODI-Pints
(liquid)-an (dry)-bau,ro.

Abbreviatures explained.

Acetabulum (lin.) 9, 8. Barrel, 1. Bath 4.
Bushel, 3. Butt, 1. Cab, 4. Caph, 4. Cheme, 6.

Chaudron, 3. Chœnix, 7. Cochlearion, 6. Concha, 6. Congius, 8. Coomb, 3. Culeus, 8. Cyathus, 9. Firkin, 2. Gallon, 1. Gomer, 5. Hemina, 9. Hin, 4. Homer, 4, 5. Hogshead, 1, 2. Kilderkin, 2. Last, 3. Letech, 5. Ligula, 9, 8. Log, 4. Medimnus, 7. Metrètes, 6. Modius, 9, 11. Mystron, 6. Oxybaphon, 7. Peck, 3. Pottle, 11. Puncheon, 1. Quadrantal, 8. Quart, 1. Rundlet, 1. Seah, 4, 5. Seam, 3. Sextarius, 8, 9. Strike, 3. Tierce, 1. Tun, 1. Urna, 8. Wey, 3.

Synonyms and Equivalents.

Amphora, quadrantal. Amphoreus, metrètes. Cadus, metrètes. Carnock, coomb. Chos, congius. Coron, homer. Cotyle, hemina. Ephah, bath. Lingula, ligula. Omer, homer. Oxybaphon, acetabulum. Pipe, butt. Quarter, seam. Quartarius, $\frac{1}{4}$ sextarius. Semimodius, $\frac{1}{2}$ modius. Xestes, sextarius.

1. i.e. A *Firkin* (1) of Beer=72 pints; (2) of Ale=64 pints; and so of the rest.

2. By act of parliament, in 1697, the gallon contains only 268 $\frac{1}{2}$ inches.

3. By experiment, made in 1688, it was found to contain only 224 inches.

LONG MEASURES REDUCED TO INCHES.

- | | | |
|---|---|---|
| 1 | { | Nail-d.ro. Pal-t. Hăn-ă. Spa-n. Foot-ad. |
| | | Cübî-bei. E (f l) ěp (eng) ol. |
| 2 | { | Y-is. Pa-sj. Fáth-pe. Ro-bouk. Furl-oindj. |
| | | Mj-sítsy. Le-miles 3. |
| 3 | { | H. Pal-f. Sp-ad. C-ef. F-ous. Ez-băf. Ar-and. |
| | | Schoen-andj. Stă-naug. M-ousth. |
| 4 | { | G. Dör-f. Lăch-ăz. Orth-ab. Sp-nd. Pygm-ak. |
| | | Pj-dz. O-nan. St-nang. M-oi-kyz. |
| 5 | { | R. Ūnc-ă,ri. Pal-f. Pe-bs. Pal n-dj. Căo-ef. |
| | | Gră-kj. Pass-kj. Stă-byth. |

PROPORTIONS.

- 6 { Line-be. Bär-i. DIGIT, INCH (Heb. Gk. Rom.)
{ nad: ,pulö: peldu'. [M²-eizth.
7 { FOOT--Eng-ath.—Grëk-äzyp.—³Rom (coss) naup
{ (st) oupě (vës) oukau.

Abbreviatures explained.

Arabian pole, 3. Barley-corn, 6. Cubit=pygme, pygon, pechus 1, 3, 5. Digit, 6. Doron=palm, 4. Ell (flemish, english), 1. Ezekiel's reed, 3. Fathom, 2, 3. Foot=pous=pes, 1, 5, 7. Furlong=stadium, 2, 3, 4, 5. Gradus, 5. Hand, 1. League, 2. Lichas, 4. Line, 6. Mile = milion = miliäre, 2, &c. Nail, 1. Orguia, 4. Orthodóron, 4. Pace=passus, 2, 5. Palm=doron, 1, 3, 5. Palmipes, 5. Passus=pace, 5. Pes=foot, 5. Pygme, 4. Pygon, 4. Rod, 2. Schœnus, 3. Span=spithame, 1, 3, 4. Spithame=span, 4. Stadium=furlong, 4, 5. Uncia, 5. Yard, 2.

Synonyms and Equivalents.

Amma^h, cubit. Aulos, furlong. Chebal, schœnus. Cubit (lesser) pygme, (greater) pechys. Dactylo- dochme, doron. Diaulos, 2 stadia. Dochme, doron. Gomed, span. Kaneh, Ezekiel's reed. Measuring-rod, schœnus. Mili-are,-on, mile. Palæste, doron. Pathil, schœnus. Pechys, cubit. Perch, rod. Pole, rod. Pollex, uncia. Pous, pes. Tophach, palm. Ulna, cubitus. Zereth, span.

1. N.B. The *Digit* is sometimes divided into 4 *grains*; the *Line* into 6 *points*.

2. N.B. A *Sabbath-day's journey* is reckoned to be 730 paces, 6 of which made the *Parasang*, 48 a *day's journey*.

3. i.e. The proportion of the Roman foot to the English (divided into 1600 parts) is here expressed as found—on the monument of *Cossutius*—on that of *Statilius*—on a congius of *Vespasian*.

SQUARE MEASURES REDUCED TO SQUARE FEET

- 1 { E. Yar-n. Pace-du. Pöle-epe,rö. Roöd-azkouz.
Acrë-ötusy.
2 { G. Plethron — azasf. Aroua, the half: but
Ægyptian—itdaun.
3 { R. Juger-esoutÿ. Cli-tisaÿ. Vě-nilÿ. (mĭn)
A-fökei (qu) atfauz.

Abbreviatures explained.

Actus minimus, quadratus, 3. Clima, 3. Jugerum, 3.
Versus, 3. Yard, 1.

MULTIPLICATION TABLE.

$$\begin{array}{l} \text{from 7} \\ \text{by 12} \end{array} \left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{P-oi,on. P-ei,us. P-ou,si. K-ei,so,} \\ \text{K-ou,pe. N-öu,eia.} \end{array} \right\} \\ \left\{ \begin{array}{l} \text{F-ad,fei. L-ad,sÿ. S-äd,oid. P-ad,ko.} \\ \text{K-ad,ouäü. N-ad,azei.} \end{array} \right\} \end{array} \right\} \begin{array}{l} 7 \times 7 \\ = 49 \end{array}$$

NUMERICAL LETTERS.

- 1 R. { In Numerals] A less number, *afore*, Abates';
after, Encreases.²
2 { I-b. V-u. X-az. L-uz. C-azÿ. D-ÿyz.
M (CIC³) *ath*: hence (CCIC³) *byth*.
3 { s b. ' -az. p-ag⁴—bu⁵—from-ug by רףי to
ouzy⁶ [CCCIC³
4 H. { -ath by the Units:⁷ but oftener by רלס, prefixing
the numbers⁸ [azyth.
5 { a-b. i-az. p-ag.⁴ στ-au. (υ) koppä-nÿ (ται)
sanpi-ouÿz.⁹ á (α q α)-azyz.
6 G. { I-b. H-ÿ. Δ-äz. H-ag. X-ath. M-azth. Π mul-
tiples others inscribed in it.¹⁰

1. e. g. IV. 4, IX. 9, XL. 40, XC. 90.

2. e. g. — VI. 6, XIV. 14, XIX. 19, XXIX. 29. —
s 11, 2 12: s 101, 2 102—α 11, ρα 101, &c.

3. Formed, in current writing, from M; part whereof, united, (viz. מ) became D. 500; hence ממ 5000, מממ 50000.

4. i. e. Units, tens, hundreds, begin from the letters here specified; and are to be reckoned on, in order, from them: e. g. α 1, β 2, γ 3, &c. ι 10, κ 20, λ 30, &c. ρ 100, σ 200, &c.

5. Instead of יה , being the ineffable name of Jehovah.

6. e. g. ד 500, ם 600, נ 700, &c.

7. Before the letters expressive of hundreds; as, ארלר 1534: very seldom otherwise; אע 1070.

8. e. g. אלפים 2000, מאלפים 3000, ראלפים 30000, &c.

9. The various figures and names of these numeral characters, see in my Table of Greek characters.

10. e. g. Δ (10) inscribed in Π (5) is $\boxed{\Delta}$ (50).

PRACTICE

1. *If one?*¹ the sought *into* Price,² or its factors;² or *by* Aliquot parts,⁴ and, by the Aliquots of Fractions of Sought (if any) *divide* Price.⁵
2. *What'll one?*⁶ the Price *by* Commodity;⁷ but, if too large, *by* its factors.⁸

1. i. e. In questions where the conditional term is 1: as, when we say, “*If one* cost so much, what will so much cost?”

2. i. e. Multiply *the* question-term, or thing *sought, into* the price, &c.—e. g. *If one* cost 10s. what will 20 cost? &c. Answ. 20 (the thing sought) \times 10 (the price) = 200s. i. e. 10*l*.

3. viz. when more commodious.—e. g. *If one* cost 12s. 6*d*. what will 14? Answ. The factors of 14 being 2×7 ; say $2 \times 12s. 6d. = 25s.$: then $7 \times 25s. = 175s.$ i. e. 8*l*. 15*s*. — N. B. If the multiplier be not resolvable into factors, take those that come nearest it, and add the price for the odd one, or multiply it by what the factors want of the multiplier.

4. Divide it *by* the *Even parts* of the denomination, in which you would have the answer.—e. g. *If one* cost 12s. 6*d*., what will

14? Answ. 10s. being the $\frac{1}{2}$ of 1*l.* and 2s. 6*d.* (which makes up the 12s. 6*d.*) the $\frac{1}{4}$ of 10s.; say 2 in 14=7*l.*; then 4 in 7 (the quotient of 14 by 2)=1: and there remains 3*l.*, which, in the next inferior denomination (viz. shillings) is 60, then 4 in 60=15s.

Thus 14.....14 pds. pks. &c.

divided by	<i>s. d.</i>		$\frac{1}{2}$	gives	<i>l. s.</i>		$\frac{1}{2}$	gives	<i>s. d.</i>		$\frac{1}{2}$	gives	<i>s. d.</i>	
	10	0			7	0			10	0			7	0
	2	6			1	15			2	0			1	8
	<hr/>				<hr/>				<hr/>				<hr/>	
	12	6			8	15			12	6			8	15

5. As in the following example

84 cwt. 3 qr. 11 lb. at 1*l.* 1s. 10*d.*

Aliquots of 1s.	1 <i>l.</i> 1s. =	21	<hr/>	qr. lb.		<i>s. d.</i>	
		84		2	0	$\frac{1}{2}$	10 11
		84		1	0	$\frac{1}{2}$	5 5 $\frac{1}{2}$
		168		0	7	$\frac{1}{4}$	1 4 $\frac{1}{4}$
		42		0	4	$\frac{1}{7}$	0 9 $\frac{1}{4}$
6 <i>d.</i> $\frac{1}{2}$		28	<hr/>	3	11		18 6
4 <i>d.</i> $\frac{1}{3}$		18 6		<hr/>		<hr/>	
3 qr. 11 lb.				aliq. of fract.		pr. of fract.	

In all 1852s. 6*d.* the answer: which, being halved, gives 92*l.* 12s. 6*d.* the price of 84 cwt. 3 qr. 11 lb.

6. i. e. In sums, wherein the Question-term is 1; as when we say, "If so much cost so much, *What'll one cost?*"

7. e. g. If 12 cost 10s. 6*d.* what will 1? Answer, 12 in 10s. 6*d.* I cannot have; but 12 in 10×12 (to reduce it to pence)=120+6=126: then 12 in 126=10*d.* and 6 remains; which multiplied into 4 (to reduce it to farthings) is 24: then 12 in 24=2 q.

s. d.
Thus in 10 6
12 0 10 $\frac{1}{2}$

or, by the factors of 12, viz. 2×6, or 3×4; as in the following:

8. The foregoing example will stand thus:

<i>s. d.</i>		<hr/>	<i>s. d.</i>	
In 10	6		In 10	6
2	5 3		3	3 6
6	0 10 $\frac{1}{2}$		4	0 10 $\frac{1}{2}$

So the answer is found more easily than by dividing by 12; much more so will it be, when that number is higher.

RULE OF THREE.

ALL QUESTIONS IN IT ANSWERED (1) BY ONE STATING (2) THE SAME WAY.

(1) **CONDITIONAL** in one line: and, opposite, the terms **CORRESPONDING**.

(2) **-DEND** is the **-Ducing** of one *into* **-Duc'd** of the other: the **Rest-SOR**.¹

N. B. *No -Duc'd*: the *facit* of one line divide by that of the other.²

1. i. e. *The producing^a terms of one line multiplied into the produc'd^b of the other, give the diviDEND; and the rest of the terms multiplied together, give the diviSOR; the quotient falls to the blank.^c—(a) Producing terms are such as jointly produce any effect; e. g. whatever is considered as a cause, with the adjuncts of time, distance, measure, &c.—(b) Producing terms are such as are connected with the others under the character of price, purchase, produce, gain, loss, interest, advantage, value or quantity of work, &c.—(c) e. g. At the rate of 6 per cent. per ann. what is the interest of 200*l.* for 18 months? Ans^w. The terms being stated, as they offer (without any other regard than Which are conditional, and Which imply the question); Thus:*

Interest.	Principal.	Time.
6 <i>l.</i>	100 <i>l.</i>	12m.
	200	18

or in any other order agreeable to the directions in the rule, say 6 (the produced term of one line \times 18 \times 200 (the producing terms of the other) = 21600 (for the dividend: and (the rest) 100 \times 12 = 1200 (for the divisor). Then $21600 \div 1200 = 18$, the answer; viz. 18*l.*

2. i. e. If there be *no produc'd* term (as generally happens in the single rule of three inverse) *divide the facit. &c.*—e. g. How much stuff, yard-broad, will line 10 yards of cloth, yard-and-quarter broad? The terms being stated thus:

broad	long	| say 5 \times 10 = 50 and 50 \div 4 = 12 $\frac{3}{4}$ i. e. 12 yards and $\frac{3}{4}$ or $\frac{1}{2}$.
4 qrs.		
5	10 yards.	

SUBTRACTION

May be more commodiously performed by *Addition*, as in the next article.

TABULATING.

TO MULTIPLY AND DIVIDE BY ADDITION ONLY.

1. Twice-double-Multiplicand facits† every multiplicator. † *gives the f. of.*
2. Tabulate Divisor: Quote next digit-under: Subtract by Addition.

1. In the MULTIPLICATION-sum (I.) the facits of the multiplicand *twice doubled*, are, as they stand against the digits 2 and 4. Then, To multiply the multiplicand—into 8 (the last figure of the multiplier) double the facit of the digit 4—into 6 (the 2d figure, &c.) add the facit of 4 to that of 2 (= 6)—into 7 (the next figure, &c.) add together the facits of 1, 2, 4 (= 7) placing each of them as in the common method of multiplication.

<p>Multipli-cand cator</p> <table border="0"> <tr><td>1</td><td>98765</td><td>×</td><td>768</td></tr> <tr><td>2</td><td>197530</td><td>(I.)</td><td></td></tr> <tr><td>4</td><td>395060</td><td></td><td></td></tr> <tr><td colspan="4"><hr/></td></tr> <tr><td></td><td>790120</td><td>by</td><td></td></tr> <tr><td></td><td>5. 2590</td><td>8</td><td></td></tr> <tr><td></td><td>691355</td><td>7</td><td></td></tr> <tr><td></td><td></td><td>6</td><td></td></tr> <tr><td></td><td></td><td>(II.)</td><td></td></tr> <tr><td></td><td>75851520</td><td>÷</td><td>768</td></tr> <tr><td></td><td>673794</td><td></td><td>1536</td></tr> <tr><td></td><td>5898</td><td></td><td>2304</td></tr> <tr><td></td><td>43</td><td></td><td>3072</td></tr> <tr><td></td><td></td><td>Quotient (III.)</td><td>3840</td></tr> <tr><td></td><td>98765 ÷ 968</td><td></td><td>4608</td></tr> <tr><td></td><td>1929 1936</td><td></td><td>5376</td></tr> <tr><td></td><td>Quotient 102</td><td></td><td>6144</td></tr> <tr><td></td><td></td><td></td><td>6912</td></tr> </table>	1	98765	×	768	2	197530	(I.)		4	395060			<hr/>					790120	by			5. 2590	8			691355	7				6				(II.)			75851520	÷	768		673794		1536		5898		2304		43		3072			Quotient (III.)	3840		98765 ÷ 968		4608		1929 1936		5376		Quotient 102		6144				6912	<p>Digits</p> <table border="0"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>8</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> <tr><td>8</td><td></td></tr> <tr><td>9</td><td></td></tr> </table>	1		2		4		8		6		7		6		1		2		3		4		5		6		7		8		9	
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2 In the DIVISION sum (II.) (1) *Tabulate the divisor*, as in the example, viz. against the digit 2, by adding the divisor to itself; against 3, by adding together the totals of 2 and 1; against 4, by adding the total of 2 to itself, or that of 3 to that of 1; and, in like manner, in the rest, by adding together the totals of any two or more digits, equal to the digit whose total is sought. Then, (2) *Quote* (or, for the quotient, take) the *digit* against the total *next* less, or *under* the first corresponding figures of the dividend, viz. 7585. Then, instead of subtracting, according to the common method, the facit of the divisor by 9 (viz. 6912) from (7585) the corresponding figures of the dividend (3) *Subtract by addition*, and say [not, 2 from 5, and there remains 3; but] 2, and (so much as will make 5, viz.) 3 is

5: then 1, and (as much as will make 8, viz.) 7 is 8: then 9, and [what will make 15 (since 9 cannot be taken from 5) viz.] 6 is 15^a; then, 1, that I borrow, and 6 is 7; and so on.——In the Division-sum (III.) it appears that——All the tabulating necessary to find the quotient, is only to double the divisor: for, the total next less than (the 1st dividend) 987, is 968: therefore quote 1: then (the 2d dividend) 196 has no total less; therefore quote 0: then the next total less than (the 3d dividend) 1965, is (the 2d total, viz.) 1936; therefore quote 2.——And, in like manner, may be tabulated any sum by steps, as there shall be occasion.

(a) N. B. 15, being the last sound in the mouth of the operator, does more readily and certainly remind him of what he borrowed, than in the common way of subtraction; which is no small advantage to this method.

WEIGHTS.

TROY WEIGHT, FOR GOLD, SILVER, JEWELS, GRAINS, AND
LIQUORS.

MONYERS REDUCED TO BLANKS.

1 **MON.** *Pěrit-ef. Droit-okŷ. Míte-abth-udŷ. Grain-dizozy.*

GOLDSMITHS AND APOTHECARIES WEIGHT REDUCED TO
GRAINS.

2 **(GOLD.)** *Căr-ŷ.^c Pen-dŷ. (Pŷ.) Scrup-dŷ. Drăm-
auz. Ounce-okŷ. Pŷ-loisy.*

AVOIRDUPOIS WEIGHT, FOR BASER-METALS, BREAD, MERCERY,
GROCERY, &c.

WOOL REDUCED TO POUNDS.

3 **Clove-oi.** *Stone-bŷ. Tŷd-ek. Weigh-beid. Sack-
tauf. Last-fisei.*

OTHER THINGS.

4 **Pound-ounce-as.** *Hun-pounds-abe. Hún-Fother-án-
are: Tun-ez.*

HEBREW WEIGHTS, REDUCED TO GRAINS.

5 Zuza-*lf*. Bek-*azei*. Shék-*ěbei*.² Măn-*ěbeizŷ*. Tăl-*amnyth*.

GREEK AND ROMAN WEIGHTS.

6	{	Lens-, <i>kŷrābe</i> . Lept- <i>aurek</i> . Chalch- <i>ă,rě</i> . Sil- <i>t,rěk</i> . Ob-ou- <i>trek</i> .	}	6
7	{	Script- <i>ak,traf</i> . Dra- <i>lf,ouraf</i> . — Sext- <i>oid,aurp</i> . Sicil- <i>azn,erp</i> .	}	7
8	{	Duell- <i>bol,uroi</i> . — Unc- <i>fip,roi</i> . — Libra- <i>lefu,loi</i> .	}	8

PROPORTIONS.

- 9 GRAINS English-*bif,re* make French-*alei*, Dutch-*apou*.
 10 OUNCE has grains Avoir-*ofei*, Troy-*fouz*:³ as *eiy* to *oii*.⁴
 11 POUND Avoir-heavier than Troy by 2 ounces 4 drams, and 2 scruples.

Abbreviatures explained.

Bekah, 5. Carat, 2. Chalcos, 6. Drachma, 7. Duella, 8. Hundred-weight, 4. Lepton, 6. Maneh, 5. Obolus, 6. Penny-weight, 2. Pound, 2. Scriptulum, 7. Scruple, 2. Sextula, 7. Shekel, 5. Sicilicus, 7. Siliqua, 6. Talent, 5. Uncia, 8. Zuzah, 5.

Synonyms.

Gramma, scruple. Keration, siliqua. Lens, grain. Litra, libra. Quintal, hundred-weight. Sitarion, grain.

1. N.B. The *Grains* used in weighing *Diamonds*, are somewhat lighter than those used in gold, &c.

2. i. e. 218, according to Bishop Cumberland: 268, according to father Mersenne.

3. So that the avoirdupois-ounce is less by 42 grains than the troy-ounce; which amounts to near a 12th part of the whole.
4. i. e. 73 ounces-troy make 80 ounces avoirdupois

ASTRONOMY.

MARCH,

THE FIRST DAY, TO FIND ON WHAT DAY OF THE WEEK IT HAPPENS.

1. The year, more 2 and even-4th, divide by 7:
2. By what remains (for 0 sat. 1 sund. and-sö-on) it is given.

E. G. *An. Dom.* $26 + 2 + 6$ (its even 4th) $= 34 \div 7$, remains 6; i. e. Friday; accounting Saturday 0, Sunday 1, Monday 2, &c. — *Before Christ*, reckon backward; viz. Sunday 1, Saturday 2, and so on to Monday 0. e. g. *Bef. Ch.* $7 + 2 + 1$ (its even 4th) $= 10 \div 7$, remains 3, i. e. Friday. — Of the other months to find the 1st day, and consequently what day of the week any day is; V. Signs.

MONTHS,

THE NUMBER OF DAYS IN EACH, WITH THE DAYS OF THE NONES AND IDES.

Ap Sē Nō June-iz;¹ Mar-Mă Jül Oc, NO-p, ID-al;² in the rest, l..at.³

1. February, it is well known, has 28 (in the leap years 29), the rest 31.

2. i. e. The Nones are on the 7th day, the Ides on the 15th, in these 4 months.

3. i. e. The Nones are on the 5th, the Ides on the 13th, in the rest.

MOON.

CYCLE AND EPACT.

Golden's remainder of year-more-1, divided by 19.¹

Epact's the cycle into *ab*: above *iz* by *iz*, the remainder.²

CHANGE AND AGE.

New's the remainder of month-from-march and epact,
less *iz*, *auz*.³

Ap. Se. No. Jun. less *en*—For Jan. Mar. o. Feb.
Apri. 1 add.

Full's 15 days from the change—Waning, east; Growing,
west is enlightened.⁴

RISING AND SETTING.

At Sun-set, sets *New*, rises *Full*; and, each day, minutes
ub more.

Shining (in Waning) Subtract (in Encreasing) Add to
Sun-rise,-set.

SOUTHING AND TIDES.

Southing's the age into *ok* by 60: from *al*, the excess
take.⁵

High-water at London-bridge: Two hours and a half
after *Southing*.⁶

1. e. g. $1737 + 1 = 1738 + 19 = 19$: remainder 9, for the cycle, or
Golden Number.

2. e. g. 9 (the cycle) $\times 11 = 99 + 30$ (as being above 30) $= 9$:
remainder 9 for the epact.

3. e. g. May 20 (1737) What is the moon's age? Answ. 3 (the
number of the month from March, inclusively) $+ 9$ (the epact)
 $= 12 - 10 = 18$: the day of the new moon, when it is said to change.
So the moon, on the 20th of May, is 2 days old.

4. i. e. The Horns are turned, in *Decreasing* (from the Full)
Westward; in *Encreasing* (from the New) Eastward.

5. e. g. April 15 (1737) When comes the moon to the meridian?
Answ. The moon's age is 26: the excess above (*al*) 15, is 11.

Then $11 \times 48 = 528 + 60 = 588$ h. 48 m. for the Southing.—For the readier working, the rule may be thus expressed: “*Age into 4, by 5: into 12 the remainder gives minutes.*” e. g. $11 \times 4 = 44 \div 5 = 8$ h. remainder $4 \times 12 = 48'$.

6. e. g. Apr. 15 (1737) the moon Souths at 8 h. 48'. Then 8 h. $48' + 2$ h. $30' = 10$ h. 18'. (N. B.) If the total amounts to more than 12, the excess shows the hour.

THE TWELVE SIGNS

Or portions of the Zodiac, named from Constellations once in them; their names, characters, and corresponding months; with a Key to find the Sun's place on any day;¹ and on what day of the week the first day of any month happens.²

1 Ar	ma	$n^1 a^2$	♈ Aries
2 Taur	apr	$ou f$	♉ Taurus
3 Gēmī	may	$k s$	♊ Gemini
4 Cance	jún	$p e$	♋ Cancer
5 Lě	jül	$p f$	♌ Leo
6 V	au	$p p]$	♍ Virgo
7 Līb	se	$p i$	♎ Libra
8 Sc	oc	$s ů$	♏ Scorpio
9 Să	no	$p ă$	♐ Sagittarius
10 Că	de	$k t$	♑ Capricornus
11 Aquă	ja	$n s$	♒ Aquarius
12 Pīscě	feb	$ba d$	♓ Pisces

1. The method is this: To the day of the month (+11 for the old style) add the number signified by the numerals n , ou , &c. the Sun (—30, if above 30) is in the degree of the sign corresponding to the day of the month. e. g. Feb. $10 + 11$ (for the old style) $+ 11$ (for the numeral ba) $= 32 - 30 = 2^\circ$ of ♈.

2. Thus: From the day on which March 1st happens (V. March) for any other month, count forward so many days as are signified by the numerals a , f , &c. e. g. Mar. 1st, 1737, was Tuesday: therefore Apr. 1st [counting (f) 4 onwards, Tuesday being one] is

Friday: and, consequently, the 8th, 15th, 22d, 29th, are Fridays; whence may be known the rest. [N.B. Jan. and Feb. are reckoned from Mar. of the preceding year.]

SUN.

THE TIME OF ITS RISING EACH DAY.

8 Jan-o.¹ 7 Febr-ei. 6 Mar-bÿ. 5 Apr-on. 4 M-as.†
 4 Júl-p. 5 Aug-at. 6 Sept-ad. 7 Oct-be. 8 Nov-l.†
 †JUN-da, the Longest, i ji.²—the Shortest, ei boi,
 DECEM-da.†

FOR THE INTERMEDIATE DAYS.

Sought, into 60, by All, gives *Min.* fewer 1st line,
 more 2d.³

THE TIME OF ITS SETTING EACH MONTH, &c.

Setting's the complement of rising to 12; and, doubled,
 the day gives.⁴

CYCLE AND DOMINICAL LETTER.

Cycle's the remainder of year-more-9 by *ek*:⁵ if 0, *ek*.⁶
ek cycle's A; *ep*, B; and so on;⁷ every 4th has 2⁸ (next
 after these 3ds; *d* E, *au* G, *a-y* B, *bo* D, *avi* F, *de* A,
dan C) and

FORMER is used till Feb-do, in Leap-years; and, after,
 the LATTER.

TO FIND THE SUN'S PLACE IN THE ZODIAC, V. SIGNS.

1. i. e. On Jan. 4, the Sun rises at 8.
2. i. e. On Jun. 21, New style (which is the *Longest* day) the Sun rises at 3 h. 43'.
3. i. e. The day *sought* (reckoned from the day of the Sun's rising) multiplied into 60, and divided by the number of *All* the days between the day of the Sun's rising (specified) in any month, and the day of its rising in the next, *gives* the *Minutes fêrer* (or,

to be subtracted from the hour specified) in the 1st line; more (or, to be added) in the 2d line.—e. g. Apr. 13, I would know when the Sun rises. By 5 Apr-ou I find that the day sought (reckoned from the day of the Sun's rising, viz. the 9th) is 4 [for $9+4=13$.] Then $4 \times 60=240$: and $240 \div 36$ (the number of All the days from 5 Apr-ou to 4 M-as: i. e. from 9, the day the Sun rises at 5 in April; to 16, the day the sun rises at 4 in May)=6' [and $\frac{3}{4}$ i. e. by reduction] $40''=5$ h. (the day it rises on the 9th of April)=4 h. 53', 20'', then, therefore, the Sun rises on that day, viz. Apr. 13.

4. Thus, Dec. 21, New style, the Sun rises at 8 h. 17': the complement of its rising to 13 is 3 h. 43' [for 8 h. 17'—12 h.=3 h. 43'.] The Sun, therefore, sets at 3 h. 43': and this, doubled, gives the length of the day, viz. 7 h. 26': shorter by 9 h. 8' than the longest; which (by the same calculation) will be found to be 16 h. 34'.

5. e. g. $1737 \times 9=1746 \div 28=62$ (the number of revolutions since Christ) remainder 10, for the number of the cycle.

6. i. e. If there be no remainder, it will be (ek) the 28th, or last year of the cycle.

7. i. e. The dominical letter answering to the year of the cycle 28 is A; to 27, B; and so on (backwards) to G, the 7th and last: after which returns A, B, &c.

8. e. g. Every 4th (or Leap year^a) has 2 dominical letters: the latter of which is used after Feb. 24, the intercalary day; which is therefore denoted by the same letter as the 23d.—N. B. For the readier finding the dominical letter answering to any number of the cycle, I have given (in parenthesis) those of every third: thus (aei F) F answering to 18 (one of the 3ds there specified), 17 (the next 4th, reckoning backwards) will be G A; 16, B; 15, C; &c.

For the readier finding Leap-year, the rule is this: “Year-sought divide by 4; what's left will be, for leap-year, 0; for past, 1, 2, or 3.” e. g. $1737 \div 4=434$: remainder 1, for 1st after leap-year

CHRONOLOGY.

ROMAN MANNER OF DATING.

- (1) Kal. Non. Id. (2) Pridie. (3) Tert. quart: (nb)
 The day sought subtract from
One more than Ide-None-days; *Two* more than the
 months, for the Kalends.

I. (i. e.) For the days on which the Kalends, Nones, Ides of any month happen (V. Months) write (e. g.) *Kal. Dec.* on the kalends of December, viz. the 1st day of December. (2) On the day preceding each of them, write (e. g.) *Pridie Kal. Dec.* i. e. pridie kalendas decembris, on the day before the kalends of December, viz. the 30th of November. (3) For the days backward, write *Tertio, Quarto, &c.* i. e. on the 3d, 4th, &c.

II. To find any of the days, e. g.—(1) 10th of December. What, in the Roman style? Answ. 10—14 (*One more than the days the ides happen on* = 4. i. e. 4to id. Dec. Again (2) 4to id. Dec. What, in the English style? Answ. 4—14 = 10 i. e. the 10th of December.—(1) 20th of November: Say 20—32 (*Two more than the number of the days in the month*) = 12 i. e. 12mo. kal. Dec. (2) 12mo. kal. Dec. say 12—32 = 20.

EPOCHAS.

THEIR COMMENCEMENT IN THE JULIAN PERIOD.

WORLD	<i>pauf</i>	764	of the World	<i>from the creation (A. M. or O. C.)</i>
CHRIST*	<i>opaf</i>	4714	of Christ	<i>birth of Jesus Christ (A. D.)</i>
Act	<i>óski</i>	4683	Actian	<i>defeat of Anthony at Actium.</i>
Agon. capit.	<i>opnon</i>	4799	Capitoline	<i>institution of the Capitoline games.</i>
Bab	<i>dake</i>	2482	Babylonian	<i>beginning of the Assyrian monarchy.</i>
Cyr	<i>obki</i>	4183	of Cyrus	<i>end of the captivity under Cyrus.</i>
Del	<i>efan</i>	2419	Delge	<i>Noah's universal Deluge.</i>
Diocelesi	<i>onnoi</i>	4997	Diocelesian	<i>persecution under Dioclesian.</i>
Exod	<i>idáp</i>	3217	Exodus	<i>Going of the Israelites out of Egypt.</i>
Heg	<i>util</i>	5335	Hegira	<i>Flight of Mahomet to Mecca.</i>
Indict	<i>azel</i>	5025	Indictions	<i>institution of the Indictions.</i>
Juli	<i>ospa</i>	4671	of Julius	<i>reformation of the calendar under J. Caesar.</i>
Nábon	<i>inap</i>	3967	of Nabonassar	<i>reign of Nabonassar king of Babylon.</i>
Olympic	<i>inik</i>	3938	Olympic	<i>institution of the Olympic games.</i>
Philipp	<i>ótni</i>	4393	Philippic	<i>succession of Philip to Alex. the Great.</i>
Rom	<i>insa</i>	3971	Rome built	<i>building of the city of Rome (U. C.)</i>
Sel	<i>ofyt</i>	4403	Contracts	<i>reign of Seleucus king of Syria, &c.</i>
Spanish	<i>ospan</i>	4676	Spanish	<i>defeat of the Spaniards by Calvinus.</i>
Troy	<i>tute</i>	3532	Troy taken	<i>taking of the city of Troy.</i>
Yezdegir	<i>utof</i>	5344	Yezdegirdic	<i>death of Yezdegird king of Persia.</i>

* CHRIST born A. M. *fyco*. Jew-*tycaud*. Greek, ecc-*long*: civil-*utzon*.

TO FIND

- 1 { *The year of the Julian period corresponding to any year in any Era.*
- 2 { *Any year of any Era by the corresponding year of the Julian period.*
- 1) { JUL——for *After* add Comm-less-1——for *Afore* take from Comm.
- 2) { ER——*After*, Comm-less-1 take for Corr——but *Afore*, Corr. from Comm.

1. *What year of the JULIAN Period* is the year 1737 (1) before Christ? (2) after Christ?——Answ. (1) 1737 (before Christ) —4714 (the year of the commencement of the Christian era in the Julian period) = 2977. (2) 1737 (after Christ) + 4713 (the commencement-less-1) = 6450, the year of the Julian period.

2. *What year of the CHRISTIAN Era* is the year of the Julian period (1) 2977? (2) 6450?——Answ. (1) 2977 (the year of the Julian period corresponding to the year of the era sought) —4714 (the commencement of the Christian era) = 1737. (2) 6450 (the corresponding year) —4713 (the commencement-less-1) = 1737.

*FOR THE NUMBER OF YEARS FROM THE CREATION TO THE BIRTH OF CHRIST.

——The *Christian* vulgar era commences in the year of the world 4004, Jan. 1. [according to Helvicus, Isaacson, &c. 3948.]——The *Jews* place the creation of the world, Later by 242 years, viz. in 3762, Oct. 7.——The *Greek* historians, on the authority of the septuagint, Sooner by about 1490, or 1500 years, viz. the ecclesiastical, in 5494; the *civil*, in 5509.

FESTIVALS, HOLY-DAYS, FEASTS, &c.

IMMOVABLE.

CHRIST.

Nát-de,*du*.¹ Círc-ja,*b*. Epiph-ja,*s*. Lámm-au,*b*.
HoRood-se,*bo*. Transf-au,*s*.

MARY.

Ann-mär,*el*. Púr-feb,*e*. Nat-se,*k*. Vís-jul,*e*. Cón-
de,*k*. Ass-au,*al*.

SAINTS.

All-növ,*ä*. And-nov,*iz*. Bap-jun,*ef*. Bárnaby-jun,*ab*.
Barth-aug,*éf*. George-apr,*et*. James-jul,*du*. Inuöcönt-
dec,*dei*.
John-dec,*doi*. Luke-o,*ak*. Mark-ápri,*du*. Márti-
novemb,*ad*.
Mátt-se,*da*. Paul-jan,*du*. Pet-jun,*dou*. Phíl Jaco-
may,*a*.
Sim Jud-o,*ék*. Ste-de,*dau*. Tho-dec,*da*. Váentine-
feb,*af*.

ROYAL FAMILY, 1737.

CÓR-o,*ba*. PRÓCLA-jun,*ab*. BORN, King-o,*ty*: scít.
Queen-mar,*a*: seíd.
Wáles-ja,*ty*: pyp. -cess-n,*ak*. AnOr-o,*de*: pÿn.
Ame-ma,*iz*: pab.
Car-ma,*iz*: pát. Will-apr,*al*: pēb. Már-fe,*de*: pet.
Loui-d,*p*: pēf.

TERMS, AS IN 1737.

Terms hold weeks *al*: dáy's Hilar-*eb*. East-ép. Trin-
dy, Mich-*tau*.
HIL from ján-di to feb-bc. ——— MICH from óc-do to
nov-ek.
EAST, wēd-e áfter, begins: ends, áfter ascénsion, mond-a.
TRIN, fríday áfter, begins; and ends 3d wédnesday after.
Vac. holds weeks *toi*: dáy's Hilar-*oit*. East-ap. Tr-abs.
Mich-*us*.

QUARTERLY.

Lády-mar,*el.* Midsum-jun,*ef.* Mich-sep,*dou.* Chri-
dec,*al.*

STATE HOLIDAYS.

Fire-sep,*e.* Powd-no,*l.* Márt-ja,*ty.* Réstor-may,*dóu.*
Revo-feb,*at.*

MOVABLE.

¹BEFORE AND AFTER EASTER.²

1 { Sept-st.² Sex-us. Shrove-ón. Qua-fe. Lent-os.
Pál-p. Maund-i. Good Fri-d.

EASTER's the first Sunday after first Full-moon after
March-da.

2 { Low-oi.² Róga-tu. Asc-in. Whits-on. Trín-lau.
Ad-eta.

EMBER-days. We Fri Sát, after Quá Whit Ho Róod
Luci-dec,*at.*

EASTER TABLE.

PASCHAL-FULL-MOONS FOR THE GOLDEN NUMBERS, WITH THE
HEBDOMADAL LETTERS.

1 A	<i>l</i>	<i>d</i>	7 M	<i>iz</i>	<i>e</i>	14 A	<i>bc</i>	<i>d</i>
2 M	<i>el</i>	<i>g</i>	8 A	<i>bei</i>	<i>c</i>	15 A	<i>a</i>	<i>g</i>
3 A	<i>bi</i>	<i>e</i>	9 A	<i>or</i>	<i>f</i>	16 M	<i>ea</i>	<i>c</i>
4 A	<i>e</i>	<i>a</i>	10 M	<i>coi</i>	<i>b</i>	17 A	<i>u</i>	<i>a</i>
5 M	<i>ed</i>	<i>d</i>	11 A	<i>bu</i>	<i>g</i>	18 M	<i>-eou</i>	<i>d</i>
6 A	<i>by</i>	<i>b</i>	12 A	<i>f</i>	<i>c</i>	19 A	<i>-boi</i>	<i>b</i>
			13 M	<i>eo</i>	<i>f</i>			

USE OF THE TABLE.

Súm from Hebdóm to Domín (of the year sought) ádd
to the Month's day.

Synonyms, &c.

Ash-wednesday, 1st day of lent. Candlemas, purification of the virgin M. Crucifixion, good-friday. Holy-thursday, maundy. Holy-week, last of lent. John the

Baptist, midsummer. Parasceue, good-friday. Passion-week, last of lent. Pentecost, whitsuntide, whitsontide. Processioning - day, ascension - day. Quinquagesima, shrove-sunday. Shor-(Shur-)thursday, maundy-thursday. Twelfth-day, epiphany.

1. i. e. The *nativity* of Christ is on *Dec.* 25, and so of the rest.

2. i. e. — *Septuagesima*-sunday is (*st*) 63 days *before* Easter [70 before the octave of Easter] — *Lor*-sunday is (*oi*) 7 days *after* Easter, and so of the rest.

3. The *Easter-table* consists of 5 verses, each ending at a period-mark; and may be read thus: "One-ald, two-melg, three-*äbŭ* e. four-*Aëŭ*, five-medd," &c.—Its *Use* is to find Easter-sunday for ever. V. n. 4.

4. e. g. A. D. 1737, the golden number is 9, the dominical letter B., then, against 9 (in the table) the hebdomadal letter is F., from thence to the dominical B. are (g a b) 3; which added to apr. 7 (the day of the month, in the table) gives apr. 10, for Easter-sunday.—So A. D. 1736, golden-number 8, 1st dominical letter C; then from C (in the table) to C (dominic.) 7 + apr. 18 = apr. 25.



GEOGRAPHY.

In the following verses (which contain as much, I think, as is necessary to charge the memory with by way of foundation) I have given the most general divisions of the several parts of the terraqueous globe; beginning, in each, with the most northerly parts, and, in descending southwards, proceed (to the right) from west to east: so that children, with a few hints and occasional helps, may be able to find them, by themselves, and thereby fix them better in their memory; after which they will easily get the verses by heart, and be well prepared to consult the gazetteer, or to go through any system, with pleasure, to good advantage.

LAND.

Continents, Isles, Peninsulas, Isthmus, Capes, Mountains.

CONTINENTS.

EUROPE, AFRICA, ASIA, AND AMERICA.

AF (8) Bar (féz mor a tún tripo bárc) Bi (dar) Egý
(àlex cair)Zaár (zu) Ne (tómb) Nubi (dáng) Gui (ma why be
lo c áng) Ethí (mon caf)AM (23) Green Brít Wa La Cán Acad Eng Jers
Pén Mary Virg CarGeor Kent. Flór (aug pens) Mex (guád me ta jú
chi guat hon ver)Firm (pa ca már venez ánd gra po cóm dari) Pér
(quito lín charc)Am: Brášř (sál seba vin) Chil (já) Para (guai tuen
plat) MagAS (5) Tär (ă sīb che thi) Túrĸ (tu na cúrd sy di-
ár) Pe (der isp gomb)Ind (mōg āg beng: vis go bi mál: pe to sí co) Chi
pek nankEUR (18) Nor-berg. Swede-stock. (Scot-ed'n. Ire-
dúblin. E-london.Dén-cōp. Hōl-amst. Fland-brúss. Ge-viēn. Po-wa.
Russ-peter: France-par.Switz-basil. Húng-presb. Port-lisb. Spáin-mad. Itál-
ro. Tu-constant.

AFRICA.

Barbary comprehends the kingdoms of Fez, Morocco, Algiers, Tunis, Tripoli, Barca. *Bildulgerid*: Daara. *Egypt*: (ch. cit.) Alexandria, Cairo. *Zaara*: (ch. prov.) Zuenziga. *Negroland*: Tombute. *Nubia*: Dangola. *Guinea*: Malaguette, Whydaw, Benin, Loango, Congo, Angola. *Ethiopia*: Monemugi, Monomotapa, Caffraria.

AMERICA.

Greenland, *New - Britain*, *New - Wales*, *Labrador*, *Canada*, *Acadia* or *Nova Scotia*, *New-England*, *New*

Jersey, Pennsylvania, Maryland, Virginia, Carolina, Georgia, Kentucky. Florida: (ch. towns) St. Augustine, Pensacola. *Mexico:* (ch. prov.) Guadalajara, Mechuan, Tabasco, Yucatan, Chiapa, Guatimála, Honduras, Veragua. *Terra - Firma:* Panama, Carthagéna, St. Martha, Venezuela, Andalusia, Granada, Popayan, Comana, Darien. *Peru:* Quito, Lima, Los-Charcos. *Amazonia. Brazil:* (ch. cit.) St. Salvador, St. Sebastian, St. Vincent. *Chili:* St. Jago. *Paraguay:* (ch. prov.) Guaira, Tucuman, Rio-de-la-Plata. *Terra-Magellanica.*

ASIA.

Tartary: (ch. prov.) Astrachan, Siberia, Chienyang, Thibet. *Turkey:* Turcomania, Natolia, Curdistan, Syria including Palestine, Diarbee, Eyraco - Arabic. *Persia:* (ch. cit.) Derbent, Ispahan, Gombroon. *India:* (ch. prov.) empire of the Great Mogul (Agra, Bengal) Visiapour, Golconda, Bisnagur, Malabar, Pegu, Tonquin, Siam, Cochinchina. *China:* (ch. cit.) Pekin, Nankin.

EUROPE.

Norway: (ch. cit.) Bergen. *Sweden:* Stockholm. *Scotland:* Edinburgh. *Ireland:* Dublin. *England:* London. *Denmark:* Copenhagen. *Holland:* Amsterdam. *Flanders:* Brussels. *Germany:* Vienna. *Poland:* Warsaw. *Russia:* Petersburg. *France:* Paris. *Switzerland:* Basil. *Hungary:* Presburg. *Portugal:* Lisbon. *Spain:* Madrid. *Italy:* Rome. *Turkey:* Constantinople.

CAPES, ISLANDS, PENINSULAS, AND MOUNTAINS.

CAPES: La Li St-éng. Fi Vi-spáin. Bla Ve Góol-afri. Cóm-malab. Horn-fueg.

ISLES : Zé-den. Az-pő. Să Sic Ca Cy-méd. Ma Ca-bárb. He-guî. Mad-eth.

Mald Ceyl Súm Bó Su Jáv Phi Mo Ladr-ind. Newf-la. So-south-seas.

Bér-flo. Ba Cú Jam Hi Ríc, Carib (ánt ne mo barb) mex. Fneg-mag.

PEN : Jü-de. Mó-gre. Pre-tárt. Afri. Cám-b. Malac-ind. Mex-amer-north.

MOUNT : Chévî-scot. Pyr-spain. Alps-ít. Cauca-tárt. Apalach-n-am.

CAPES.

Land's-end, Lizard, Start-point (of) *England*, Finisterre, St. Vincent's, *Spain*. Blanco, Verd, Good-Hope, *Africa*. Comorin, *Malabar*. Horn, *Fuego*.

ISLES.

Zealand (in) *Denmark*. Azores (west of) *Portugal*. Sardinia, Sicily, Candia, Cyprus (in the) *Mediterranean*. Madeiras, Canaries (against) *Barbary*. St. Heléna, *Guinea*. Madagascar, *Ethiopia*. Maldives, Ceylon. Sumatra, Borneo, Sunda, Java, Philippines, Moluccas, Ladrones, *East-Indies*. Newfoundland, *Labrador*. Society-Isles (in the) *South-Seas*. Bermudas (against) *Florida*. Bahamas, Cuba, Jamaica, Hispaniôla, Porto-Rico : Caribbees (Antigua, Nevis, Montserrat, Barbadoes) *Mexico*. Fuego, *Terra-Magellanica*.

PENINSULAS.

Jutland (in) *Denmark*. Morea, *Greece*. Precop, *Tartary*. Aír-ica, Cambaya, Malacca, *East-Indies*. Mexico, *North-America*.

MOUNTAINS.

Cheviot (between) *Scotland* and *England*. Pyrenees, *Spain* and *France*. Alps, *Italy* and *France*. Caucasus (in) *Tartary*. Apalachian, *North-America*.

WATER.

Oceans, Seas, Gulfs, Straits, Lakes, and Rivers.

OCEANS : Hyp. Ethi. East. Alt-West. Paci-South-del Zur. Ice.

SEAS : Ba *de-Swede*. Chan-*éng*. Med-*eu,áfr*. Black-*eu,as*. Casp-*tartar*.

GULFS : Bo Fi-*swéde*. Ven-*ital*. Red-*arab*. Pers. Bég. Baff Hu-*north-am*.

STRAITS : Sound-*bált*. Gi-*med*. Hét-*bla*. Ba-*rédi*. Sun-*in*. Húd-*bu*. Da-*baff*. Mag.

LAKES : Lad O-*russ*. Ne Lo-*scot*. Ge Lu-*switz*. Baba-*pérs*. Bo-*ne*. Par-*firm*.

RIV. Vó-*că*. Dan-*bla*. Rhi-*ger*. Rh Eb Níl-*me*. T Eu-*pers*, Ga-*be*. Mis-*mex*.

OCEANS.

Hyperborean or northern. Ethiopian. Eastern Atlantic or western. Pacific or south, or mare del Zur. Icey near the south pole.

SEAS.

Baltic, east of *Denmark* and *Sweden*. Channel, south east of *England*. Mediterranean, between *Europe* and *Africa* and part of *Asia*. Black sea, between part of *Europe* and *Asia*. Caspian, in *Great Tartary*.

GULFS.

Of Bothnia and of Finland, in *Sweden*. Of Venice, east of *Italy*. Red-sea, between *Arabia* and *Africa*. Persian Gulf. Bay of Bengal, in *Asia*. Baffin's and Hudson's Bays, in *North America*.

STRAITS.

Sound (of the) *Baltic*. Gibraltar, *Mediterranean*. Hellespont, *Black-sea*. Babelmandel, *Red-sea*. Sunda, *Indian-ocean*. Hudson's, *Button's-bay*. Davis's, *Baffin's-bay*. Magellan, *South America*.

LAKES.

Ladoga and Onega, western part of *Russia*. Loch-Ness and Lomond (in) *Scotland*. Lakes of Geneva and Lucern, *Switzerland*. Babacombar, *Persia*. Bordon, *Negroland*. Parime, *Terra Firma*.

RIVERS.

Volga (falls into the) *Caspian-sea*. Danube, *Black-sea*. Rhine, *German-ocean*. Rhone, Ebro, Nile, *Mediterranean*. Tigris, Euphrates, *Persian-gulf*. Ganges, bay of *Bengal*. Mississippi, bay of *Mexico*.

A MORE PARTICULAR ACCOUNT

of the several countries of Europe may be exhibited, so as to give a precise idea of the situation of each subdivision, after the manner of the following specimen; in which (beside what was proposed in general, note 1) such as are contiguous *Southward*, are *joined*, as in weLa-: such as are contiguous *Westward*, are *hyphenated*; as in Che-De- &c.

ENGLAND.

ITS FORTY COUNTIES.

Nor cum-dúr: weLa-yórk: che-de-not-line: shróp-stale-rut norf:
 Hér-wo-wa-nórtha: Bed-hunt-cámb-suff: mon-gl-óxfobuck-hert-ess.
 Som--wilt--bérk--middlesex: corn--dev--dors--hámp--surrey-kentSuss.

FIRST MERIDIANS

ON EITHER SIDE OF TENERIFFE.

(Eást) London-as. (West) Fer-d. Jag-s. Nicol-oi.
 Corvó-bei. Bras-bou.

Abbreviatures.

Ferro. St. Jago. St. Nicholas, coast of Brasil.

The Dutch placed the first Meridian at Teneriffe; the French, since 1364, at Ferro, two degrees west of Teneriffe: others, variously, as in the memorial verse. In most of the French maps, and those copied from them, two degrees must be allowed on such as are calculated on the Dutch plan, to make them correspond; as, for example, Hamburgh is there said to be *long.* 29° 20' E. consequently in the French maps it will be found in 31° 20', and in similar manner are all the rest. Many modern geographers usually now calculate the first Meridian from the capital city of the state in which each resides: the English reckon from the Royal Observatory at Greenwich, near London; the North Americans from Philadelphia, situated 75° S' W. from London; and several of the French from Paris, 2° 20' E. of London.

HISTORY.

BIBLE.

The several Books of it, with the time of their writing.

OLD TESTAMENT.

ITS THIRTY-NINE BOOKS

Eli-jöb: *úpty.* Mo-pent: *bog.* Jósh: *boly.* Sám-ju-ki: *bazy.*
 Dáv: *byly.* Sol pro-can-ecc: *ath.* Mórd-e: *tez.*
 El'z-chr: *ety.* Neh: *eg.*

PROPHETS.

Jón: *kse.* Jo: *eig.* Am: *peíp.* Hose: *oicil.* Is: *päuy.* Nah: *puk.*
 Mic: *put.* Jér: *sta.* Zeph: *áutz.* Haba: *syu.* Ezé: *loul.* Obadi: *lkoí.*
 Dániel: *ull.* Hag: *léz.* Zechari: *udz.* M'álachi: *tonoi.*

NEW TESTAMENT.

ITS TWENTY-SEVEN BOOKS.

Matt-*fa*.² Mar-*ot*. Thess-*lét*. Pe-*lo*. Gal Cor Róma-
loi. Luke-*sa*.
 Phil Col Ephés Phile Jáme-*se*. Heb Act-*si*. Timothy
 Tít-*su*.
 Tim Peter-*aup*. Jude-*pá*. Revel-*ous*. John-*noí* —
²*doi* in *iau*.

1. i. e. *Elihu* is more probably supposed to be the author of the book of *job*, about 1730 years before the birth of Christ. So, *Moses*, the author of the *pentateuch*, flourished in the year before Christ 1400. And so of the rest.——N. B. *Ezra* is thought by the Jewish doctors to have writ the *chronicles* [the 36th chapter of Genesis, the last of Joshua and Jeremiah; and to have revised and settled the canon of the Old Testament.]

2. i. e. *Matthew* writ his Gospel about the year of our Lord 41. And so of the rest.

3. i. e. 27 books (from the year 41 to 97) in 36 years.

ENGLAND.

ITS KINGS, SINCE THE CONQUEST, WITH THE COMMENCEMENT
 OF THEIR REIGNS.

WILL Conq-*sau*,¹ Ruf-*koi*. HEN 1st-*ag*. STEPH-*bil*.
 HE sec-*buf*.
 RICH 1st-*bein*. JOHN-*ann*. HEN 3d-*das*. EDWARD
 1st-*doid*.
 Ed 2d-*typ*, 3d-*tép*. Rí sec-*ipp*. HEN 4th-*toun*, 5th-
fat,
 6th-*fed*. Ed 4th-*faub*, 5th, Rí 3d-*feit*. HE 7th-*feil*,
 8th-*lyn*.
 ED 6th-*lóp*. MARY-*lut*. ELS-*luk*. JAME 1st-*syt*. Cä-
 1st-*sel*.
 CAR 2d-*són*. JAME se-*seíl*. WILL MA-*sein*. ANN-*pýd*.
 GEO-*paf*, *pep*.

1. i. e. *William* the conqueror began his reign (accounting the year to begin January 1) A. D. 1066.—N. B. 1000 is omitted throughout this list.

MONARCHIES.

THE GRAND OR UNIVERSAL ONES, THEIR RISE, FALL, AND CONTINUANCE.

ASS : Nīn(A.M.)-āpók, Sar-tetú (BAB-ifan, PERS-táuboi, GREC-isel ÷ Cáss-ma-gre. Lys thrac-he-bós. Ptolem aé-lib-a-pál-sy. Seleuc as.)

ROM : Jül-inýd, Jov-otat ÷ East, Wést : taken Cón-loze, Rom-otun : Alar(A.D.)-obz. Attī-flă. Géns-ful. Od-ops. Theód-oni. Tot-lop.

i. e. The—Assyrian Monarchy begun in *Nīnus* (A.M.) 1748, and ended with *Assaraddinus* in 3235 ; being swallowed up by the *BABYLONIAN*, which ended (with *Nabonadius*) in 3419, (when *Cyrus* reigned over all Asia,) so the kingdom was translated to the *PERSIANS* : from whom (by the conquest of *Darius Codomannus*) in 3617, *Alexander* translated it to the *GRECIANS* : after whose death, in 3625, it was (÷) divided (after the confusion of a few years) among four of his followers. *Cassander* had *macedon* and *greece* : *Lysimachus* had *thrace*, with those parts of Asia that border on the *hellespont* and the *bosphorus* : *Ptolemy* had *ægypt*, *libya*, *arabia*, *palestine*, and *cælo-syria* : *Seleucus*, all the rest of *asia*. The — Roman monarchy begun with *Julius Cæsar*, in 3902 ; and ended in *Jovian* in 4313 : after whose death it was (÷) divided into the *Eastern*, and *Western* empires : the former of which ended by the taking of *Constantinople* (under *Constantine Palæologus*) in 5402 ; the latter by the taking of *Rome* (under *Honorius*) in 4359, A. D. 410, by *Alaric*, king of the *Goths* ; after whom it was overrun and ravaged by *Attīla*, king of the *Huns*, in 451 ; by *Genseric*, the *Vandal*, in 455 ; by *Odoacer*, king of the *Heruli*, in 476 ; by *Theodoric*, king of the *Ostrogoths* in 493 ; *Totilas*, the *Ostrogoth*, in 547.

WAR.

BODIES OF SOLDIERS.

- R] Déc-by. Cen-ázy. Man-eg. Turm-ig. Cohor-áug
Legi-auth. Ph-euth.¹
E] Comp-uz,ag. Squad-ag,ag. Ba-ig,eíg. Brigad-
áth,bay. Reg-ig,auth.²

1. The ROMAN *Legi:n* consisted of (at a medium) 6000 men; though the number was different, at different times, from 3000 to 6666. And, in proportion, the other bodies, viz. *Dccuria*, 10. *Centuria*, 100. *Manipulus*, 200. *Turma*, 300. *Cohort*, 600. *Phalanx*, 8000.

2. An ENGLISH *Regiment* is from 300 to 1000 men. And, in proportion, the other bodies, viz. *Company*, 50-100. *Squadron*, 100-200. *Battalion*, 500-500. *Brigade*, 1000-1100.

NATURAL PHILOSOPHY.

PHYSICS.

ANNUITIES.

THEIR VALUE, FOR SEVERAL AGES OF LIFE.

A-bz,dei.¹ Az-bí,fo. Ez-bě,pei. Iz-bă,pe. Oz-áz,űp.
Ol-n,oub.
Uz-ou,eb. Ul-k,uh. Auz-oi,sy. Aul-ău,lo. Oiz-l,id.

1. i. e. for (A) 1 year of age, the value of an annuity is (bz,dei) 10·28 years' purchase. And so of the rest. V. Halley, ap Lowthorp, vol. iii. p. 669.

ARKS.

OF NOAH, AND OF THE COVENANT OR TESTIMONY, THEIR
DIMENSIONS IN CUBITS.

(Cov) L-e,re. Br-á,re. D-a,ré. (NOAH) L-ig. Br-uz.
D-íz; for Birds-eg, Qu-ag.

i. e. The *Ark*—of the COVENANT was a sort of Chest in Length, Breadth, Depth, $2\frac{1}{2}$: $1\frac{1}{2}$: $1\frac{1}{2}$.—of NOAH was a sort of Ship, 300 : 50 : 30 : sufficient to hold (with food, &c.) all kinds of *Birds* (viz.) 200 ; *Quadrupeds*, 100. Vide Gen. vi. 15. Exod. xxv. 10.

ATMOSPHERE.

ITS HEIGHT, WEIGHT, ELASTICITY, &c.

Atmosphere (HIGH miles-ó z^1) on a foot-square *présses esauz* pounds ;

On 15 feét (for a man) tuns-*al* : when leást, tun-*a, re* less ;²

WEIGHING as 1 — to (water) *eig* — to (mercury) *azth eig*.³

CÓMPREST, on Eá r th, to *atpaun* ;⁴ by Art, 60 times more, to *kesboz*.

1. As appears by a calculation, made by M. de la Hire, from the crepuscula.

2. As appears by calculations made from the Torricellian experiments. V. Jurin, ap Varen. I. 6. 19. 7.

3. i. e. The weight of air compared to that of water, is as 1 to 800, &c. V. Hauksbee's Exper.

4. i. e. The common air we breathe, near the surface of the earth, is compressed, by the bare weight of the incumbent atmosphere, into a 13769th part of the space it would take up, were it at liberty. V. Boyle, ap. Wallis. hydrost. 13. Philos. Trans. n. 181.

DIVISIBILITY

OF MATTER, ACTUALLY GREAT.

By great EFFLUVIA, in a long tíme, bodies lóse but a small weight.

Candle, an inch, convérted to LIGHT, — gives pá r ts a nonuillion.²

1. As is evident in perfumes, &c.

2. At which rate there must fly out of it, as it burns, in the second of a minute, 418,660,000,000,000,000,000,000,000,000,000,000,000,000,000 particles; vastly more than 1000 times 1000 millions the number of sands the whole earth can contain; reckoning 10 inches to 1 foot, and that 100 sands are equal to 1 inch. V. Nieuwent. Rel. Phil. vol. iii. p. 858.

DUCTILITY

OF BODIES, VERY GREAT.

MICROSCÓPICAL SPIDERS¹ spin at-a-tíme, at least, threads-*auth*.

GLASS may be drawn² as a web, and knit to the 4th of a line space.³

GOLD, on Silver-wíre, is drawn⁴ to the párt of an inch-*bom*.

1. i. e. Such as are not visible but by a microscope.

2. "As fine as a spider's web;" but not long enough to be woven.

3. i. e. So, that the space in the middle of the knot shall not exceed one 4th of a line, or one 48th of an inch.

4. "To the 14-millionth part of an inch in thinness;" and yet is so perfect a cover to the silver, that there is not an aperture to admit alcohol of wine (the subtlest fluid in nature) nor even light itself. Reaumur.

EVAPORATION

FROM WATER, ITS QUANTITY.

FOOT-square, by héat, in a day, *eváporates* hálf of a wine pint.¹

So, Medi tuns-*udkým*;² near a thírd more than's brought by the rivers.³

1. According to experiments made by Dr. Halley, ap Miscell. Curios. vol. i. To which it may be added, that the winds do sometimes carry off more than rises by heat.

2. Estimating the *Mediterranean* at 40 degrees long, and 4 broad.
3. V. Rivers; and, consequently, from the whole watery surface abundantly enough to furnish all the dews, rains, springs, rivers, &c. that are conveyed into the ocean.

MAN.

LIFE, MARRIAGE, PARTS, PERSPIRATION.

LIVE, out of *ág*, but—at *Aú*, so¹—at *As*, *fy*—ät *Es*, *dü*
—ät *Is*, *bau*

&—at *Os*, *áz*—ät *Us*, *au*—&—at *Aus*, *ĩ*—
ät *Ois*, *a*.

MARR. *a* in *ázf*:² *bir-f*³ (to *búr* as *a,áu* to *a'*) *máles-bo*
to *fem-at*.⁵

BONES-*eni*. MUSCLES-*len*. TEETH-*íd*—BLOOD as *ag*
to *aauy*.⁶

Béats, in an hour, times-*óth*: and an ounce, at a time, is
discharged:⁷

52 feet in a minute; as *sept-ag* to 1 in the extremes.⁸

PERSPIRE through póres (*belth*-whereof by one grain of
sand may be covered)

5 parts of 8 (ä *däy's food*) from hours 5, after meals, to
the 12th, 3.⁹

1. i.e. Of the children born, out of 100, there are living at 6 years of age, but 64. And so of the rest. V. Halley, ap. Lowthorp, vol. iii. p. 669.—N.B. On observations of this nature, drawn from the bills of mortality, is computed the value of *annuities* for different ages of life. V. Annuities.

2. i.e. 1 in 104 *Marry*. King.

3. i.e. Marriages, one with another, do each produce 4 births. Derham.

4. i.e. *Births* to *Burials* are as 1.6 to 1. Derham.

5. i.e. *Males*, born, to *Females*, are as 14 to 13. Graunt.

6. i.e. In a body, weighing 160 pounds, 100 thereof are *Blood*; understanding thereby not only the fluid contained in the veins and arteries; but also that in the lymphæ-ducts, nerves, and the other vessels, secreted from it, and returned into it. Keil.

7. i.e. 250 pounds in an hour; at the rate of the whole mass in 24 minutes.

8. i. e. The blood is driven out of the heart into the great artery with a velocity which would carry it 52 feet in a minute: a velocity 10 that of its motion in the remotest branches, as 100 septillions [7th period] to 1.

9. Within 5 hours after eating, there is perspired about 1 pound; from the 12th to the 16th scarce half-a-pound. Sanctorius.



RIVERS.

THE QUANTITY OF THEIR WATERS.

At Kingstön-bridge, THAMES (yards Broad-áy, Deep-í)
2 mile an hour Runs:¹

tuns-*ezm igh* in a day; *rh e ti po ni dō niest nieper*
akdoim.²



1. In a day, 48 miles, 84,480 yards; which multiplied by (3 times 100, the profile of water at the bridge, viz.) 300 yards, gives 25,344,000 cubic yards of water, i. e. 20,300 000 tuns.

2. The most considerable rivers that fall into the MEDITERRANEAN sea are the *Rhone, Ebro, Tiber, Po, Danube, Nile, Don, Niester, Nieper*. Each of these is supposed to carry down 10 times as much water as the Thames, (not that any of them is so great; but so to allow for the other lesser rivers that fall into that sea.) Now the water of the Thames being computed, as above, at about 20,300,000 tuns; the 9 rivers aforesaid will amount, each, to 203,000,000; in all, 1,827,000,000 tuns. V. Evaporation.

MEMORIAL VERSES,

ADAPTED TO THE GREGORIAN ACCOUNT, OR NEW STYLE.



TO KNOW IF IT BE LEAP YEAR.

Leap year is given, when four will divide
The cent'ries complete, or odd years beside.

EXAMPLE FOR 1752.

$$\begin{array}{r} 4 \overline{) 52} (0, \text{ Leap Year} \\ \underline{13} \end{array}$$

EXAMPLE FOR 1800

$$\begin{array}{r} 4 \overline{) 18} (2, \text{ not Leap Year} \\ \underline{4} \end{array}$$



TO FIND THE DOMINICAL LETTER.

Divide the cent'ries by four; and twice what does
remain,
Take from six; and then add to the number you gain
The odd years and their fourth; which, dividing by
seven,
What is left take from seven, and the letter is given.

EXAMPLE FOR 1752.

$$\begin{array}{r}
 4) 17 (1 \\
 \underline{ 2} \\
 4 \underline{ 2} \\
 6 \\
 \underline{ 2} \\
 4 \\
 52 \\
 13 \\
 \underline{ 7} \\
 7) 69 (6 \\
 \underline{ 42} \quad \underline{ 27} \\
 9 1 = A.
 \end{array}$$

BY THE DOMINICAL LETTER, TO FIND ON WHAT DAY OF THE
WEEK ANY DAY OF THE MONTH WILL FALL THROUGHOUT
THE YEAR.

At Dover dwells George Brown, Esquire,
Good Christopher Finch, and David Frier.*

EXAMPLE FOR MAY 9, 1752.

A being the Dominical Letter.

$$\begin{array}{r}
 1 \text{ May} = B = \text{Monday} \\
 7 \\
 \underline{ 8} = \text{Monday} \\
 1 \\
 \underline{ 9} = \text{Tuesday.}
 \end{array}$$

* See this noticed at page 94.

TO FIND THE GOLDEN NUMBER, CYCLE OF THE SUN, AND
ROMAN INDICTION.

When one, nine, three, to the year have added been,
Divide by nineteen, twenty-eight, fifteen:
By what remains each cycle's year is seen.

EXAMPLES FOR 1752.

$$\begin{array}{r} 1752 \\ 1 \\ \hline 19 \overline{) 1753} (92 \\ 43 \\ 5 = \text{G. No.} \end{array}$$

$$\begin{array}{r} 1752 \\ 9 \\ \hline 28 \overline{) 1761} (62 \\ 81 \\ 25 = \text{Cy. S.} \end{array}$$

$$\begin{array}{r} 1752 \\ 3 \\ \hline 15 \overline{) 1755} (116 \\ 25 \\ \hline 105 \\ 15 = \text{Rom. Indict.} \end{array}$$

A GENERAL RULE FOR THE EPACT.

Let the cent'ries by four be divided; and then
What remains multiplied by the number seventeen;
Forty-three times the quotient, and eighty-six more
Add to that; and dividing by five and a score;
From eleven times the prime, subtract the last quote,
Which, rejecting the thirties, gives th' epact you sought.

EXAMPLE FOR 1752.

$ \begin{array}{r} 4 \overline{) 17} (1 \\ \underline{ 17} \\ 4 \\ 43 \\ \underline{ 43} \\ 172 \\ 86 \\ 17 \\ \underline{ 17} \\ 25 \overline{) 275} (11 \end{array} $	$ \begin{array}{r} \text{G. No.} = 5 \\ 11 \\ \underline{ 11} \\ 55 \\ 11 \\ \underline{ 11} \\ 30 \overline{) 44} (1 \\ 14 = \text{E}^{\text{pact}}. \end{array} $
--	---

TO FIND THE EPACT TILL THE YEAR 1900.

The prime wanting one, multiplied by eleven,
 And the thirties rejected, th' epact is given.

EXAMPLE.

$$\begin{array}{r}
 \text{G. No.} = 5 \\
 1 \\
 \underline{ 1} \\
 4 \\
 11 \\
 30 \overline{) 44} (1 \\
 14 = \text{E}^{\text{pact}}.
 \end{array}$$

TO FIND EASTER LIMIT, OR THE DAY OF THE PASCHAL FULL
 MOON, FROM MARCH 1, INCLUSIVE.

Add six to the epact, reject three times ten,
 What's left take from fifty, the limit you gain:
 Which, if fifty, one less you must make it, and even
 When forty-nine too, if prime's more than eleven.

EXAMPLE.

$$\begin{array}{r}
 \text{Epact} = 14 \\
 \phantom{\text{Epact} = } 6 \\
 \hline
 \phantom{\text{Epact} = } 20 \\
 \phantom{\text{Epact} = } 50 \\
 \hline
 30 = \text{Limit.}
 \end{array}$$

TO FIND EASTER DAY.

If the letter and four from the limit you take,
 And what's left from next number which sevens will make;
 Adding then to the limit what last does remain,
 You the days from St. David's to Easter obtain.

EXAMPLE.

$$\begin{array}{r}
 \text{Limit} = 30 \quad A = 1 \\
 \phantom{\text{Limit} = } 5 \quad 4 \\
 \hline
 \phantom{\text{Limit} = } 25 \quad 5 \\
 28 = \text{next sevens} \\
 \hline
 \phantom{\text{Limit} = } 3 \\
 30 = \text{Limit} \\
 \hline
 33 \text{ Days} \\
 31 = \text{March} \\
 \hline
 \phantom{\text{Limit} = } . \\
 \text{April 2 Easter Day.}
 \end{array}$$

TO FIND THE AGE OR CHANGE OF THE MOON.

Janus 0, 2, 1, 2, 3, 4, 5, 6,
8, 8, 10, 10, these to the epact fix,
The sum, bate 30, to the month's day add,
Or take from 30, age, or change, is had.

EXAMPLE, MARCH 10, 1752.

Epact = 14
1 = No. of the Month
—
15
10 = Day of the Month
—
25 Days = Moon's Age.

30

15

—

15 March = Change.

—————

TO FIND THE TIME OF THE MOON'S COMING TO THE SOUTH,
AND OF HIGH WATER AT LONDON BRIDGE.

Four times the Moon's age, if by five you divide,
Gives the hour of her southing: add two for the tide.

EXAMPLE.

Moon's Age, 9 days

4

—

5) 36 (7 h.

1

12 m = $\frac{1}{2}$ h.

7 h. 12 m. p.m. = Southing.

2 12 = High Water.

—

9

APPENDIX.

REPETES MON; SIVE EST NATURÆ HOC, SIVE ARTIS

Sat. iv. lib. 2.

HORACE, in the above words, alluded to the Art of Memory, (Mnemonica) more than once praised by Cicero, who has also given precepts for the improvement thereof, in the third book of Rhetoric addressed to Herennius, where he says, "the Art consisted of fixing in the mind, upon certain conspicuous places, and on images formed of the things to be remembered and that were applied in order to those places; which last mentioned served instead of paper, and the images as so many words, whose regular application performed the office of writing." Quintilian likewise mentions Mnemonics in his "Institutes of an Orator," and Pliny notices them in his "Natural History," though the original inventor was the Greek poet Simonides, who, at a feast, recited a poem in honour of Scopas, victor in wrestling at the Olympic games, who gave the entertainment; but having digressed in praise of Castor and Pollux, his patron would pay only half the sum promised, saying he must get the other part from those deities who had an equal share in his performance. Immediately after, Simonides was told that two young men on white horses must needs speak with him. He had scarce got out of the house, when the room fell down, all the persons in it were killed, and their bodies so mangled, that they could not be known one from another: upon which Simonides recollecting the place where every one had sat, by that means distinguished them. Hence it came to be observed, that to fix a number of places in the mind in a certain order, was a help to the memory. This action of Simonides was afterwards improved into an art, the nature of which is this: form in the mind the idea of some large place or building, divided into a great number of distinct parts, ranged and disposed in order: frequently revolve these in your thoughts, till able to run them over one after another without hesitation, beginning at any part: then impress upon your mind many images of living creatures, or any

other sensible objects most likely to be soonest revived in the memory. These, like short-hand or hieroglyphics, must stand to denote an equal number of other words, not otherwise so easily to be remembered. When therefore you have a number of things to commit to memory in a certain order, place these images regularly in the several parts of your building: and thus, by going over those parts, the images placed in them will be revived in the mind; which will give the things or words themselves in the desired order. The advantage of the images seems to be, that, as they are more likely to affect the imagination than the words, they will be more easily remembered. Thus, if the image of a *lion* be made to signify *strength*, and this word be one of those I am to remember, and is placed in the porch; when, in going over the several parts of the building, I come to the porch, I shall sooner be reminded of that image than of the word *strength*. This is the artificial memory both Cicero and Quintilian speak of; but seems, indeed, a laborious way; fitter for assisting to remember any number of unconnected words than a continued discourse. Grecian orators also made use of the statues, paintings, ornaments, and other external circumstances, of the places where they harangued, for reviving, in progressive order, the topics and matter of their orations; and though among the Latins, Cicero averred that Mnemonics were the basis of his excellent memory, and their practice was cultivated by others, of whom Hortensius, Crassus, Julius Cæsar, and Seneca, are particularly noticed, yet it is not known that any modern orator has made use of this art; however, in allusion to it, we still call the parts of a discourse *places* or *topics*, and say, *in the first place, in the second place, &c.*

The science appears to have lain dormant in after ages, till Raimond Lullé, about the close of the thirteenth century, brought it once more into notice, and it has ever since been called "Lullé's Art."

Seepsius-Metrodorus, Carneades, Hippias, and Theodectes, among the ancient Greeks, practised or wrote upon this method. The principal Romans are mentioned above. The writers upon the art, from the time of Lullé to near the end of the seventeenth century, principally consisted of Marsilius-Ficinus, Grataroli, Bruschius, Muretus, Schenkel, Martin-Sommer, Horstius, Johnston, Morhof, and Paschius; with Gebelin in the eighteenth.

Muretus declares that he dictated between two and three thousand unconnected Greek, Latin, or barbarous words, to a young Corsican practising that art, who immediately spoke them regularly in order, and afterwards repeated the same backwards without any error, asserting that he would undertake to say thirty-six thousand words in a similar manner.

Lambert or Lamprecht Schenkel, born at Pois-le-Duc, in 1547, acquired celebrity for his discoveries in the Mnemonic art, and to propagate these, he travelled through the Netherlands, Germany, and France; where his method was inspected by the great, and transmitted from one university to another. Schenkel brought himself through every ordeal, to the astonishment and admiration

of his judges. The rector of the Sorbonne, at Paris, permitted him to teach his science at that University; and Marillon, Maître des Requêtes, gave him an exclusive privilege for practising Mnemonics throughout the French dominions. His auditors were, however, prohibited from communicating this art to others, under a severe penalty. Schenkel delegated the licentiate Martin-Sommer, and invested him with a regular diploma for circulating his art, under certain stipulations, through Germany, France, Italy, Spain, and the neighbouring countries. Sommer now (1619) published a Latin treatise on this subject, under the title of "*Brevis Delineatio de Utilitatibus et Effectibus admirabilibus Artis Memoriarum*." In this he announces himself as commissioned by Schenkel to instruct the whole world.

"A lawyer," says he, "who has causes to conduct, may, by the assistance of my Mnemonics, stamp them so strongly on his memory, that he will know how to answer each client, in any order, and at any hour, with as much precision as if he had but just perused his brief. And in pleading, he will not only have the evidence and reasonings of his own party at his fingers' ends, but all the grounds and refutations of his antagonist also! Let a man go into a library, and read one book after another, yet shall he be able to write down every sentence of what he has read many days after at home. The proficient in this science can dictate matters of the most opposite nature, to ten, or thirty writers, alternately. After four weeks' exercise, he will be able to class twenty-five thousand disarranged portraits within the space of a few minutes."

The Art of Memory is little more than the art of attention; and this method of it, which appears more connected with Egyptian hieroglyphics than has generally been thought, seems to consist in nothing else but a certain method of coupling or associating the ideas of things to be remembered, with the ideas of other things already disposed orderly in the mind, or that are before the eyes.

Many have been the attempts to assist the memory. Some have had recourse to medicine, such as Horstius, Marsilius-Ficinus, Johnston, and others. That good health, a good digestion, and a mind free from care, are helps in this respect, is an old observation. That attention, application, frequent recapitulation, are necessary, is known to every one. But whether, besides natural health, and parts, and the exercise of our faculties, art may not give a further assistance to memory has been a question.

Within the present century this science has been revived and greatly studied in Germany and France; Dr. Klüber published at Erlangen, in the year 1802, a German translation, illustrated by notes, of "*Gazypholium Artis Memoriarum per Schenkelium*," which the Doctor has entitled "*Compendium of Mnemonics, or the Art of Memory, at the beginning of the seventeenth Century, by L. Schenkel and M. Sommer*;" but the modern restorer of this art is M. Aretin, who exacted from his pupils a promise not to write down his lectures; and though he permitted one pupil, M. Kaest-

ner, to teach at Leipsic, yet it was on the express condition of not allowing his hearers to write. According to a book, said to have been composed by a child of twelve years of age, in the catalogue for the September fair at Leipsic, 1806, *Mnemonica* may be so taught as to give a memory to individuals of every age.

In France, the celebrated astronomer M. de Lalande bears testimony to the following facts: "I have witnessed the extraordinary effects produced on the memory by the method of M. de Feinaigle: one of his pupils is able to repeat, in any order, without the least mistake, a table of fifty cities in all parts of the world, with the degrees of longitude and latitude in which they are situated; the same is the case with chronology: in the '*Annuaire*' I have inserted 240 dates from ancient and modern history, and M. de Feinaigle's scholars repeat them all—an astonishing aid in the study of geography and history!"

Neither has this science been unattended to in Great Britain; for, besides Johnston already mentioned, who was a Scotch physician, practising at the courts of James and Charles I. Mnemonics are frequently mentioned by the great Chancellor Bacon, as in his "*Treatise on the Advancement of Learning*;" his "*Natural History*," wherein he states, "The brains of some creatures, when their heads are roasted, taken in wine, are said to strengthen the memory: as the brains of hares, hens, deer, &c. and this faculty seemeth to be incident to those creatures that are fearful." In the tract "*De Augmentis Scientiarum*," Bacon recommends theatrical action as an assistant to memory, and also alludes to the system of Simonides as founded on the theory of emblems, by saying, "Emblem reduceth conceits intellectual to images sensible, which always strike the memory more forcibly, and are therefore the more easily imprinted, than intellectual conceits." In the "*Novum Organum*" the science is again mentioned under the appellation of "Order or Distribution in respect to places, furniture, persons, animals, plants, words, letters, characters, &c."

Dr. Thomas Fuller, the author of the "*History of the Worthies of England*," was also an adept at this art; he would repeat five hundred strange words after twice hearing them, and make use of a sermon verbatim, if he once heard it: after one inspection, he told in exact order, both forwards and backwards, the name of every sign from Temple Bar to the furthest part of Cheapside, in the city of London; he would write the first words of a number of lines near the margin of a sheet of paper, then, by beginning at the head, would so completely fill up every line, and without spaces, interlineations, or contractions, so connect the whole, that the sense would be as perfect, as if regularly written in the ordinary way.

The following works were also expressly published on this subject: "*Mnemonica, or the Art of Memory, drained out of the pure Fountains of Art and Nature, digested into three books*;" also a "*Physical Treatise of Cherishing Natural Memory*;" diligently collected out of divers Learned Men's Writings. By John Willis, Batchelour in Divinity, in 1661."

This author's method commences with rules for remembering common affairs, next words, then phrases, afterwards sentences, and long speeches. The second book treats of remembering without writing, next by certain verses purposely borne in mind and by extempore verses. The third treats of Repositories, in which is a print of an imaginary building of hewn stone in form of a theatre, where all things intended to be remembered are supposed to be arranged in order, and he gives various specimens of ideas to exemplify his plan.

"The Art of Memory, a Treatise useful for all, especially such as are to speak in public. By Marius D'Assigny, B. D. 1699."

This gentleman's mode begins with a chapter on the soul or spirit of man, and in the succeeding chapters, after treating of memory, temper, &c. he gives in the sixth a number of receipts for cleansing the hair, comforting the brain, and strengthening the memory, by means of plasters, ointments, and powders, and in his other chapters proceeds with some instructions for remembering words and things; as, for instance, he states, that "others, instead of a house, palace, or building, have chosen such beasts as answer to all the alphabetical letters in the Latin tongue, dividing every one into five parts, viz. head, fore feet, belly, hinder feet, and tail, so that by this means the fancy may have one hundred and fifteen places to imprint the images of memorable things."

Heidegger, who about the year 1740 styled himself Surintendant de Plaisirs d'Angleterre, at the Opera in the Haymarket, excelled Dr. Fuller, by being able to repeat the names of all the signs in their due order on each side of the way from Charing Cross to Aldgate, a space containing near one thousand four hundred houses, most of which at that period had signs.

Dr. Rees, editor of Chambers's Cyclopædia says, "Mnemonic tables exhibit in a regular manner what is to be remembered of the same subject. And although the sciences ought to be taught scientifically as much as possible, and every thing should so be placed as to be intelligible, and demonstrable from what has proceeded, yet tables ought not to be rejected, as they are helps to retain the doctrines of which the mind has had a sufficient evidence. In such tables the properties of things are to be expressed concisely; illustrations and demonstrations should be left out, as the proposition should have been made sufficiently clear and certain before it is registered in the table—hence the contents of such tables ought only to be definitions and propositions relative to the subject. If a subject require a long table, it may be subdivided into smaller, by making first one of the most general heads, and referring from each of these to a separate table; by this means the order and connexion of the whole will be preserved. Such tables would produce a local and artificial memory of great use to the retention and recollection of things: they would greatly tend to a distinct view of the properties of their subjects, and facilitate recapitulation. Besides, as the expressions used in such tables ought to be concise, so as just to excite the idea of the object to

be remembered, soon after that idea has been acquired; after (some time) a certain obscurity will be found in perusing the tables, which will give timely warning that our ideas begin to fade, and that they ought to be renewed; and this may be done without much trouble, if not delayed too long."

"Men complain of nothing more frequently (says Beattie in the 'Theory of Moral Science') than of deficient memory: and indeed every one finds, that, after all his efforts, many of the ideas which he desired to retain have slipped irretrievably away; that acquisitions of the mind are sometimes equally fugitive with the gifts of fortune; and that a short intermission of attention more certainly lessens knowledge than impairs an estate. To assist this weakness of our nature, many methods have been proposed; all of which may be justly suspected of being ineffectual: for no art of memory, however its effects may have been boasted or admired, has been ever adopted into general use: nor have those who possessed it appeared to excel others in readiness of recollection or multiplicity of attainments. The reader who is desirous to try the effect of those helps, may have resource to a treatise entitled 'Grey's Memoria Technica, or Method of Artificial Memory:' but the true method of memory is attention and exercise."

A writer in the "Monthly Magazine" for September, 1807, under the signature of Common Sense, tells us the Art of Mnemonics is founded simply on the powers of association in the human mind. Every person who has twice travelled the same road, will probably have brought to his recollection, during the second journey, the feelings of his mind, the subjects of conversation, and other trivial incidents which occurred during his first journey, the moment he comes again within sight of the successive objects; these recollections will take place exactly in the same order as the objects which bring them again before the mind. All that is wanted to enable us to retrace any set or succession of ideas, is an unvarying continuity of objects with which we can associate them. Any person who wishes to try an experiment on this power of association, need only make use of the succession of rooms, closets, staircases, landing-places, and other remarkable spots or divisions of his own house. Let him apply any word or idea to the several parts, in determined order, and he will find it almost impossible, in recalling the same, not to associate the idea or word previously annexed to each part: for example, a person may learn the succession of the kings of England in ten minutes, by annexing the name of each succeeding monarch to the successive rooms, &c. of the house, regularly descending or ascending; but any other permanent and familiar class of objects will, in general, answer the purpose better. I was educated in the vicinity of Oxford-street, and the streets running therefrom, south and north, (beginning at Charles-street, Soho-square, and proceeding to Park-lane, and back again on the other side to Hanway-yard,) are the permanent and familiar objects I use for the purpose of successive association. The counties in England, the kingdoms and countries throughout

the world, the villages, and other objects on a great road, or the streets of a city, are all well suited to this business of association; and any of them may be taken indifferently by various persons, according to their acquaintance therewith. The greater the variety of ideas connected with this set of objects, which may be called *the associating key*, the more easy and certain is the power of recollection. By this method I once committed to memory, in a single morning, the whole of the propositions contained in the three first books of Euclid, with such perfection, that I could for years afterwards specify the number of the book on hearing the proposition named, and recite the proposition on hearing the number and the book; and have frequently, in mixed companies, repeated backwards and forwards from fifty to a hundred unconnected words, which have been but once called over. To prove the simplicity of the plan, I taught two of my own children to repeat fifty unconnected words in a first lesson, of not more than half an hour's continuance.

CHRONOLOGICAL WORDS

ON DR. GREY'S PLAN.



- Creothf*, the creation of the world, 4004 years A. C.
Deletok, the deluge, 2318.
Babethcop, the building of Babel, 2247.
Argonattou, the Argonautic expedition, 1359.
Lycurgoudau, the birth of Lycurgus, 926.
Olympois, the Olympic games, 776.
Romput, the foundation of Rome, 753.
Ninevsyd, the destruction of Nineveh, 602.
Marathony, the battle of Marathon, 490.
Alexanderilau, the birth of Alexander, 356.
Ipsiza, the battle of Ipsus, 301.
Cheronitei, the battle of Cheronæa, 338.
Pharsalok, the battle of Pharsalia, 48.
Philippod, the battle of Philippi, 42.
Actita, the battle of Actium, 31.
Jesit, the resurrection of Jesus Christ, A. D. 33.
Herculanoïn, the destruction of Herculaneum, 79.
Jerusalotz, the destruction of Jerusalem, 70.
Romoaz, Rome sacked by Alarie, 410.
Romopy, Rome being taken by Odoacer, 470.
Mahomupa, the birth of Mahomet, 571.
Mahomaudd, the Hegira of Mahomet, 622.
Mahomsid, Mahomet's death, 632.
Jerusalstau, Jerusalem taken by Omar, 636.
Charlemoife, the birth of Charlemagne, 742.
Charlemeiyz, Charlemagne crowned at Rome, 800.
Alfrcioz, Alfred divided England into counties, &c. 890.
Canutazap, Canute became king of England, 1017.
Macbazoy, Macbeth usurped the throne of Scotland, 1010.
Williazsau, England conquered by William of Normandy, 1066.
Crusadazoul, the first crusade commenced, 1095.
Henrag, Henry I. commenced his reign, 1100.
Ghibelaglo, the Ghibelines and Guelfs disturbed Italy, 1154.
Jerusalagkoi, Jerusalem taken by Saladin, 1187.
Constantinopladyd, Constantinople taken by the French and Venetians, 1202.

- Turkadouk*, the Turkish empire commenced under Othman, 1298.
Bannockalaf, the battle of Bannockburn, 1314.
Crecatos, the battle of Crecy, 1346.
Poicatlan, the battle of Poitiers, 1356.
Otterbateik, the battle of Otterburn, 1388.
Tamerlajyd, the victory of Tamerlane at Angoria, 1402.
Agincourfal, the battle of Agincourt, 1415.
Columbafoud, Columbus discovered Hispaniola and Cuba, 1492.
Cabotafoun, Sebastian Cabot landed in North America, 1499.
Maximilalyz, Maximilian divided Germany, 1500.
Lutheralboi, Luther commenced the Reformation, 1517.
Charlalbou, Charles V. elected emperor, 1519.
Rhodalde, Rhodes taken, 1522.
Pavaldu, the battle of Pavia, 1525.
Romaldoi, Rome taken by Charles V. 1527.
Passalud, the treaty of Passau, 1552.
Vervalouk, the peace of Vervins, 1598.
Pragasez, the battle of Prague, 1620.
Barbadasel, the planting of Barbadoes, 1625.
Lutzasid, the battle of Lutzen, 1632.
Westphalasok, the treaty of Westphalia, 1648.
Nimegbaupei, the peace of Nimeguen, 1678.
Revolaskei, the revolution in Britain, 1688.
Gibraltapzo, Gibraltar taken by Admiral Rooke, 1704.
Blenheiboify, the battle of Blenheim, 1704.
Malplaboizou, the battle of Malplaquet, 1709.
Dettinapot, the battle of Dettingen, 1743.
Fontenboifu, the battle of Fontenoy, 1745.
Mindenaplou, the battle of Minden, 1759.
Grenadapoin, Grenada taken by the French, 1779.
Bastilapkou, the Bastile destroyed, 1789.
Louisapni, Louis XVI. guillotined, 1793.
Camperdapnoi, the Dutch defeated off Camperdown, 1797.
Nilapnei, the battle of the Nile, 1798.
Seringapnou, the taking of Seringapatam, 1799.
Trafalgakyl, the battle of Trafalgar, 1805.
Regenakba, Prince of Wales appointed Regent 1811.
Moscobeibe, the burning of Moscow, 1812.
Waterlakal, the battle of Waterloo, 1815.
Geo-fobeidy, accession of George IV. 1820.
Napobeida, the death of Napoleon Buonaparte, 1821.
Will-fobeity, accession of William IV. 1830.

CHRONOLOGICAL EXERCISES

ON DR. GREY'S METHOD OF ARTIFICIAL MEMORY.



Form memorial words expressive of the era of the building of Babel, 2247 years before Christ.

The building of Thebes, 1493.

The building of Corinth, 1320.

The building of Tyre, 1252.

The burning of Troy, 1184.

The building of Carthage, 869.

The foundation of Byzantium, 658.

The taking of Babylon by Cyrus, 538.

The battle of Salamis, 480.

The battle of Mantinea, 363.

The battle of Arbela, 331.

The taking of Corinth by the Romans, 146.

The battle of Pharsalia, 48; and the death of Julius Caesar, 41 years A.C.

The commencement of Trajan's reign, A.D. 98.

The commencement of Aurelian's reign, 270.

Charlemagne sole monarch of France, 772.

The battle of Roncesvalles, 778.

The commencement of the reign of Alfred, 872.

The commencement of the reign of Canute, 1017.

The commencement of the reign of Stephen, 1135.

The commencement of the reign of Margaret of Norway, 1266.

The battle of Angoria, 1402.

The battle of Barnet, 1471.

The revolution in England, 1688.

The battle of Dettingen, 1743.

The siege of Gibraltar, 1779.

The destruction of the Bastile, 1789.

The union between Great Britain and Ireland, 1800.

The surrender of Alexandria to the British troops, 1801.

THE USE OF THE INDEX.

THE following Index may be useful in two respects: either as it will serve to try the proficiency of the learner, who may exercise himself in resolving and explaining the memorial words, thus separated from their proper classes, and intermingled with each other, (which will at the same time be a means to fix them the better in his memory;) or, as it may be to those who are a little acquainted with the art, but have not charged their memories with the *technical* ones, a *ready help* to answer many questions in chronology, geography, history, &c. without the trouble of searching for them in the tables: to make which the easier in the historical and chronological part, it was thought proper to add a letter or two at the end of each word; by the help of which, and the beginning of the words together, any one, who is but tolerably acquainted with history, and is master of the general key, will readily know what the words stand for. The principal abbreviations are as follow:

AB. Archbishop of Canterbury.	K. Ju. King of Judah.
Ær. Æra or epocha.	K. Is. King of Israel.
B. Battle.	K. M. King of Media.
B. R. Bishop of Rome.	K. Ma. King of Macedon.
C. Council.	K. P. King of Persia.
Ep. Epistle, <i>i. e.</i> the time of writing it.	K. R. King of Rome.
Ev. Evangelist.	K. S. King of Syria.
E. R. Emperor of Rome.	L. Lawgiver, Learned Man, Author, &c.
E. E. Emperor of the East.	Leg. Legate.
E. W. Emperor of the West.	Mart. Martyr.
F. Father.	P. Pope.
H. Heretic, Schismatic, &c.	Pa. Patriarch.
H. P. High Priest.	Ph. Philosopher.
J. Judge of Israel.	Po. Poet.
K. King.	Pr. Prophet.
K. Ass. King of Assyria.	Q. Queen.
K. B. King of Babylon.	W. War.
K. E. King of England.	= Different Names of the same person
K. Eg. King of Egypt.	

Those words which have no letter at the end of them, denote some fact in history; as *Abaneb*, the calling of Abraham.

The italic letters represent the year before or after Christ. The small capitals *M* and *P* in the middle of a word denote the year of the world, or of the Julian period; as *TroyPilla*, &c.

Be careful to give the right pronunciation; and note, that the accent, unless where otherwise marked, or when the penultima, or last syllable but one, is long by position, is always on the antepenultima, or last syllable but two.

INDEX

10

GREY'S MEMORIA TECHNICA:

Containing the Chronological and Historical Words.

	PAGE		PAGE
<i>Abaneb</i> or <i>Abraneb</i> Æ.....	5, 6, 7	<i>Alextis</i> K. Ma.....	31
<i>Abdonaso</i> J.....	18	<i>Alfrékpe</i> K. E.....	12, 13
<i>Abezyk-boil</i> Pa.....	16	<i>Alphabin</i> K. Portugal.....	45
* <i>Abimelels</i> J.....	18	<i>Amastlaun</i> K. Eg.....	24, 25
<i>Abíauup</i> K. Ju.....	19, 20	<i>Amázkin</i> K. Ju.....	19, 20
<i>Abmečki & Abpépní</i> Pa.....	8	<i>Ambrolpo</i> F.....	41, 42
<i>Abrámanous</i> Pa.....	17, 18	<i>Amónsot</i> K. Ju.....	19, 20
<i>Actila</i> B.....	34, 131	<i>Amospeip</i> Pr.....	21
<i>Actst</i> Apostles.....	45	<i>Anácloud</i> Po.....	32
<i>Adam-crothf</i> Pa.....	17, 18	<i>Anastafua</i> E. E.....	37, 38
<i>Adniz</i> Pa.....	16	<i>Ancy-Neotal</i> C.....	40
<i>Adribap</i> E. R.....	35, 37	<i>Ancsip</i> K. R.....	33
<i>Ægialézkou</i> K.....	29, 30	<i>Ann-chei</i> Q. E.....	14
<i>Ægtas</i> K. Ma.....	31	<i>Annpyb</i> Q. E.....	13
<i>Ænedeido & Ænekef</i>	3	<i>An-Sabatafff</i>	9, 10
<i>Ænobarbate</i> E. W.....	38	<i>Antigonoz</i> K. Ju.....	29
<i>Æschlet</i> Po.....	32	<i>Ant-Épib il-Eúpaso</i> , <i>Gryp-</i>	
<i>Agáthlaup</i> L.....	43, 44	<i>adi-Magdee</i> K. S.....	27
<i>Ahábnak</i> , <i>Ahazikku</i> , <i>Ahazi-</i>		<i>Ant-Ph'bsa</i> E. R.....	35, 37
<i>koup & Aházpod</i> K. Ju.		<i>Ant-Pibip</i> E. R.....	<i>ib.</i>
or <i>Is</i>	19, 20	<i>Ant-Sidéiboz -Sodoin &</i>	
<i>Alarobz</i> K. Goths.....	38, 39	<i>-Théodauz</i>	27
<i>Al-Balhu</i> K. S.....	27, 28	<i>Antitob</i> C.....	40
<i>Albantyt</i> Mart.....	10, 11	<i>Appi-Tra</i> L.....	44
<i>Alexauky</i> K. Eg.....	27	<i>Apride</i>	33
<i>Alexándroik</i> Q. Ju.....	29	<i>Apronauun</i> K. B.....	22, 23
<i>Alex-Cazka</i> E. E.....	38	<i>Aprunf</i> K. Eg.....	24, 25
<i>Alexita</i> K. Ma.....	ix, 30	<i>Apr=Hoph</i> K. Eg.....	26
* <i>Alex-Sédd</i> E. R.....	35, 37	<i>Aquádsi</i> L.....	43

* This and several other words in the *Memorial Lines* are contracted, as *Abmels*, *Al-Sedd*, &c. &c.

<i>Aquibek</i> L.	41, 42	<i>Basfa</i> C.	40
<i>Arasleifík</i> Pa.	16	<i>Basilibbe</i> H.	41, 42
<i>Arbapop</i> K. Ass.	21, 23	<i>Bas-Maeekau</i> E. E.	37, 38
<i>Arb</i> = <i>Tig</i> . K. Ass.	26	<i>Bas-Magtoiz</i> F.	41, 42
<i>Arbeltib</i> B.	31	<i>Bedsaus</i> L.	43, 44
<i>Archelt</i> K. Ju.	29	<i>Belespop</i> K. B.	21, 23
<i>Archidad</i> L.	32	<i>Bel</i> = <i>Bala</i> = <i>Nab</i> K. B.	25
<i>Archiloseiz</i> or <i>Archilochuska</i> Po.	32	<i>Belibupze</i> K. B.	22, 23
<i>Arctoul</i> E. E.	37, 38, 44, 45	<i>Berodsou</i> L.	43
<i>Argóbdau</i> 30		<i>Berokib</i> K. Sweden.	45
<i>Aridætet</i> K. Ma.	31	<i>Bóadaup</i> Q. Br.	12, 13
<i>Arisbys</i> K. Ju.	28, 29	<i>Boleslath</i> K. Poland	45
<i>Aristéd</i> Ph.	32	<i>Bonesa</i> AB.	46
<i>Aritel</i> H.	5, 6, 39, 42	<i>Byzantiz</i> 36	
<i>Arkpyu</i> K. B.	22, 23	<i>Cadeffy</i> 15	
<i>Aristób-secaun</i> K. Ju.	29	<i>Cadmáfno</i> K.	30
<i>Arnobtyt</i> F.	41, 42	<i>C-Ag-Co-Po-Monsciz</i> C. . .	5, 39
<i>Arphetos</i> Pa.	17, 18	<i>Caitel-naz</i> Pa.	16
<i>Arri-Ant</i> P. L.	44	<i>Caitspou</i> Pa.	17, 18
<i>Arstip</i> K. P.	25	<i>Caligulik</i> E. R.	34, 35
<i>Arthlaf</i> K. E.	12, 13	<i>Cambylen</i> K. P.	24, 25
<i>Art-Long</i> = <i>Ahas</i> K. P.	26	<i>Camb</i> = <i>Ahas</i> K. P.	26
<i>Art-Longfauf</i> K. P.	24, 25	<i>Canbau</i> K. E.	12, 13
<i>Art-Muoyf</i> K. P.	25	<i>Candaup</i> K.	30
<i>Arunfyk</i> AB.	46	<i>Car-Gdab</i> E. R.	35, 37
<i>Asanul</i> K. Ju.	19, 20	<i>Carankaf</i> K. Ma.	30
<i>Assarsky</i> K. Ass. & B. . .	22, 23	<i>Car-C-Nudke</i> E. R.	36, 37
<i>Ass</i> = <i>Esar</i> = <i>Asnap</i> K. Ass. 25, 26		<i>Caro-primsel</i> K. E.	13
<i>Astuno</i> K. M.	24, 25	<i>Car-secsok</i> K. E.	ib.
<i>Asty</i> = <i>Ahas</i> K. P.	26	<i>Car-chep-riz</i> K. E.	14
<i>Athalikko</i> Q. Ju.	19, 20	<i>Casibelud</i> 12, 13	
<i>Athanies</i> or <i>Athates</i> F.	41, 42	<i>Cáss-magre</i> K. M.	31
<i>Athaulfaz</i> K. Spain	45	<i>Catilaud</i> 34	
<i>A-Thedan</i> K. S.	27	<i>Cecblus</i> K.	29, 30
<i>Athenagorapp</i> or <i>Athnapp</i> F.	40, 42	<i>Celsbuz</i> L.	42
<i>Attifla</i> K. Huns.	x, 38, 39	<i>Cerauneel</i> K. S.	27
<i>Aug-Ethelânau</i> 11		<i>Ceritheiz</i> H.	41, 42
<i>Augustfoit</i> E. W.	37, 38	<i>Chál-Le-Mar-Eudiola</i> C. . .	5, 39
<i>Augustel</i> E. R.	34, 35	<i>Charlemeig</i> E. W.	11, 37, 38, 45
<i>Avitful</i> E. W.	37, 38	<i>Charoppuo</i> Archon	30
<i>Aulaut</i> K. Eg.	27	<i>Charteel</i> 14, 15	
<i>Aurepz</i> E. R.	36, 37	<i>Chiehful</i> AB.	46
<i>Austins</i> F.	x, 41, 42	<i>Chi-Po-Jugpes</i> 22, 23	
<i>Baanut</i> K. Is.	19, 20	<i>Chlo-Galtyt</i> E. R.	36, 37
<i>Bab-Dár-Hylas</i> 9, 10		<i>Chris-Mündothf</i> Æ.	8, 130
<i>Bábedit</i> 9, 10		<i>Chris-Perifoibo</i> Æ.	8
<i>Bal-Pudik</i> E. R.	36, 37	<i>Chrysotouk</i> F.	41, 42
<i>Balsaboub</i> L.	43, 44	<i>Chynsop</i> K. Ass & B.	22, 23
		<i>Cimbat</i> W.	34
		<i>Cle-k-aloud</i> P.	42, 43

<i>Cle-p-atcip</i> P.....	42, 43	<i>Decidon</i> E. R.	36, 37
<i>Cleopatla</i> Q. Eg.....	ix. 27	<i>Dej</i> = <i>Arphax</i> K. M.	26
<i>Clé-Romaul</i> F.....	40, 42	<i>Dej-apzou</i> K. M.	24, 25
<i>Clem-Alexane</i> F.....	ib.	<i>Déletok</i> Ær.....	5, 6, 7
<i>Clesk</i> E. R.....	36, 37	<i>Del-Masus</i> & <i>-Pétsau</i> Ær. .	8
<i>Claod</i> E. R.....	35	<i>Dem-Nicafu</i> , <i>-Nicaty</i> & <i>Sâse</i>	
<i>Clôvoka</i> K. F.	10, 11	K. S.	27
<i>Co-Da-Thé-Mateib</i> , & <i>Co-</i>		<i>Den-Okazou</i> K.	45
<i>Vi-Júst-Olut</i> C.....	5, 39	<i>Diadap</i> E. R.....	35, 37
<i>Codomattu</i> K. P.....	25	<i>Diconoi</i>	33, 34
<i>Codrâzpa</i> K. Athens	30	<i>Did-Juli-Sant</i> E. R.....	35, 37
<i>Col-E-Ph-Jase</i> Ep.....	45	<i>Di-Halic-Aug</i> L.....	44
<i>Columbont</i>	11	<i>Diocléseko</i> Ær.....	7
<i>Commôdbeiz</i> E. R.	35, 37	<i>Dio-gen</i> Ær.....	131
<i>Compatze</i>	11	<i>Diogetet</i> Ph.....	32
<i>Confêse</i> K. E. Pa.....	12, 13	<i>Dio-Maxdeif</i> E. R.....	36, 37
<i>Constantinobôti</i>	11, 38	<i>Disp-Judpa</i> Ær.	10, 11
<i>Const-Arcout</i> E. E.....	44, 45	<i>Domitka</i> E. R.....	35
<i>Constaf</i> C.....	40	<i>Dónaten</i> H.....	42
<i>Constys</i> E. R.....	36, 37	<i>Dracsef</i> or <i>Drásdo</i> L.....	32
<i>Co-Co-Constip</i> E. R.....	ib.	<i>Ecclesi-Paxtad</i>	10, 11
<i>Consulzoi</i>	33, 34	<i>Ed-primdoid</i> , <i>-setyp</i> , <i>-tertes</i> ,	
<i>Contractad</i> & <i>Contracjad</i> Ær. 7		<i>-quarfaut</i> , <i>-fi-Rolt</i> & <i>-sex-</i>	
<i>Con-ta</i> Ær.....	131	<i>tos</i> K. E.....	12, 13
<i>Copérnicafôit</i> L.....	43, 44	<i>Ed</i> = <i>Nás-loi-rét-cho-pov-iek</i>	
<i>Corinth-Rup</i> Ep.....	45, 46	K. L.....	14
<i>Creoseiz</i> Archon.....	30	<i>Edmundis</i> A B.....	46
<i>Creppaz</i> Ær.....	8	<i>Egbekck</i> K. E.....	12, 13, 45
<i>Cræsûse</i> K.	x. 30	<i>Ehutet</i> J.....	18
<i>Croisâznu</i>	11	<i>Eleádna</i> H. P.....	28, 29
<i>Crom-morsuk</i> & <i>Cromti</i> ...	15	<i>Eliasholt</i> H. P.....	ib.
<i>Ciothf</i> Ær.....	5, 6, 7	<i>Elîbup</i> H. P.....	18
<i>Curt-Vesp</i> L.....	44	<i>El-nap</i> Q. E.....	14
<i>Cyaxasif</i> K. M.	24, 25	<i>Elniz</i> K. Is.	19, 20
<i>Cy-d-tun</i> K. M.	ib.	<i>Eloboil</i> J.	18
<i>Cyprelk</i> F. & Mart.	41, 42	<i>Elzluk</i> Q. E.....	13
<i>Cyr-Alexôbe</i> F.....	ib.	<i>Empád</i> = <i>Balad</i> K. B.	25, 26
<i>Cyr-Jiltz</i> F. & Mart.	ib.	<i>Empca</i> K. B.	22, 23
<i>Cyrtis</i> Ær.....	7	<i>Euchséd-isu</i> Pa.....	16
<i>Cyr-Múnt-sk</i> Ær.....	8	<i>Enchtike</i> Pa.....	17, 18
<i>Cyr-Pobak</i> Ær.....	ib.	<i>Endil-nyl</i> Pa.....	16
<i>Cyruis</i> K. P.....	ix. 5, 6, 7, 24, 30	<i>Eng-Egbekck</i> K. E.....	45
<i>Dar-Hystalda</i> K. P.....	24, 25	<i>Enosipaun</i> Pa.....	17, 18
<i>Dar-Medlik</i> K. B.....	23	<i>Eph-Ce-The-Nésfib</i> C. ...	5, 29
<i>Dar-Nothodi</i> K. P.....	24, 25	<i>Eph-Jase</i> Ep.....	45, 46
<i>Dar-M</i> = <i>Cya</i> K. M.....	26	<i>Eph-Syitoiz</i> F.....	41, 42
<i>Danull</i> Pr.....	21	<i>Epieudpa</i> Ph.....	32
<i>Davazut</i> K. Is.	19, 20	<i>Epiphânisk</i> F.	41, 42
<i>Dehedeil</i> Pr.....	18	<i>Erasmuts</i> L.....	43, 44
<i>Decemvclj</i>	33, 34	<i>Esarhadapzau</i> K. Ass.	21, 23

Esar=Asnap K. Ass.....	26	Grec-ecc- <i>lonf</i> & Grec-civil- <i>ulzon</i> Ær.	130
Esthosa Q.	10	Grego- <i>bi-bûpe</i> P.	42, 43
Ethelûnau K. E.....	11	Grego-Naztoiz F.	41, 42
Evagteiz F.....	41, 42	Greg-Thaumelf F.....	<i>ib.</i>
Eudos K. Eg.....	26, 27	Grypadi K. S.	27, 28
Euclozan L.	32	Gunpâtfo.....	11
Evillaub K. B.....	23		
Eunomilaus H.	42	Habasyn & Haglez Pr.....	21
Eu-Pantal F.....	41, 42	Halie-Aug L.	44
Eurymedapz B.....	31	Heb-aped-ôso Pa.	16
Eutropfck L.	43, 44	Hébdeka Pa.	17, 18
Exáfua Ær.....	5, 6, 7	Hebsi Ep.	45, 46
Expidet & Exmélat Ær....	8	Helidap-k E. R.....	35, 36
Ezetoul Pr.	21	Hen-gé-te'-an-sez-chez-gib- ged-ped K. E.	14
Ezrolk	10	Hengful K.	12, 13
		Hen-quarbzû E. W.	38
Fergtid K. Scotland	45	Hen-Stetsi L.	43, 44
Fil-constip E. R.	36, 37	Hen-prag, -sécbuf, -thdas, -fotoun, -fifád, -sifed, -sépfeil & -oclyn K. E. .	12, 13
Flav-Clesk E. R.....	<i>ib.</i>	Hercuadoif.....	30
Florénfin C.	40	Hermogapf H.....	41, 42
Fols	33	Herm-Pastaul F.....	40, 42
Fran-Pharomódy K.	45	Herodik K. Ju.	29
Fredbdap E. W.....	38	Herodofus L.....	ix, 43
		Hesychifoun L.....	43, 44
Gá-Co-Rup Ep.....	45, 46	Hezepep K. Ju.	19, 20
Galbot L.....	43, 44	Hieroeléze L.....	42
Galbann E. R.....	35	Hilarif F.....	41, 42
Galb-Othosou E. R.....	<i>ib.</i>	Hippabse L.....	43
Galertyl E. R.	36, 37, 44, 45	Holoféstu.....	9, 10
Galilasfe L.....	43, 44	Homnad Po.....	32
Galliendauz E. R.....	36, 37	Honortni E. W.....	37, 38
Gall-Voludá E. R.....	<i>ib.</i>	Hosepku Pr.....	21
Galup Ep.....	45, 46	Hospiz or Hoseptz K. Is. .	20
Gangloz C.....	40	Hostilspy K. R.	33
Gelásone P.....	42, 43	Hybaboid	11
Gelaad L.....	43, 44	Hygalo P.....	44, 45
Gensful K. Vandals.....	39	Hyrcau H. P.	29
Geopbo-pdoi-pauz-kez K. E.	13	Hyrca-secundsí H. P.....	<i>ib.</i>
Geor-ga-jab K. E.....	14		
Ger-Charlmeig E. W.....	45	Jácobebauk-bop Pa.	16
Gerizózei.....	10	Jadutob H. P.....	28, 29
Getdab E. R.	35, 37	Jaýdaz J.....	18
Gibrapzo	15	Jakip Pa.	17, 18
Gidedol J.....	18	Jamaicauil ...	15
Gildusp L.	43, 44	Jamse Ep.....	45, 46
God-Bulnou K.	14, 15	Jamseif & -syd K. E.....	13
Gordin E. R.....	x, 36, 37	Jam-chef-fau K. E.....	14
Gracchade.....	34		
Granitif B.	31		
Gratabla L.	43, 44		
Gratott E. W.....	37, 38		

<i>Jann</i> K. E. ....ix. 3, 12, 13	<i>Jufs</i> E. R. ....44, 45
<i>Jannazu</i> H. P. ....29	<i>Jugpes</i> K. B. ....22, 23
<i>Jarósy-naud</i> Pa. ....16	<i>Jugubzou</i> W. ....34
<i>Jarilof</i> Pa. ....17, 18	<i>Julios</i> E. R. ....ix. 30, 34, 35
<i>Jasboit</i> H. P. ....28, 29	<i>Juliant</i> E. R. ....35, 37
<i>Ihzáke</i> J. ....18	<i>Julisa</i> E. R. ....36, 37
<i>Jehoaashkoik</i> , -hoahaklau, -hoashkin, -hoiakaug, & -hoiakimsyn K. Ju. or K. Is. ....19, 20	<i>Ju-Maccabass</i> H. P. ...10, 28, 29
<i>Jehoiassys</i> K. J. ....9, 10	<i>Justinilep</i> E. E. ....37, 38
<i>Jehortein</i> , -hosaphanbo & hukko K. Is. or Ju. ....19, 20	<i>Justlak</i> E. E. ....ib.
<i>Jephtakk</i> J. ....18	<i>Just-Marboz</i> F. ....40, 42
<i>Jeromtoik</i> F. ....41, 42	<i>Laborosoarchul</i> K. B. ....23
<i>Jerobnoil</i> K. Is. ....9, 10, 19	<i>Lactantyt</i> F. ....41, 42
<i>Jero-sekdu</i> K. Is. ....20	<i>Laertbop</i> L. ....43, 44
<i>Jersta</i> Pr. ....21	<i>Lamibiz</i> Pa. ....17, 18
<i>Jeshuáalis</i> H. P. ....28, 29	<i>Lamkoif-poip</i> Pa. ....16
<i>Ignabza</i> F. ....40, 42	<i>Langhisp</i> AB. ....46
<i>Inakus</i> K. ....x. 3, 29, 30	<i>Laódisa</i> C. ....40
<i>incendikk</i> ....34	<i>Lagty</i> K. Eg. ....26, 27
<i>Inquisded</i> ....14, 15	<i>Laibéd-in-oil-dal-lap</i> C. ....39, 40
<i>Joankof</i> P. ....42, 43	<i>L-az-blat</i> P. ....42, 43
<i>Joeleig</i> Pr. ....20, 21	<i>Lathyradz</i> K. Eg. ....27
<i>Johanánipt</i> H. P. ....28, 29	<i>Le-Ispap</i> E. E. ....37, 38
<i>Johnp</i> Ev. & Ep. ....45, 46	<i>Léotoi</i> E. E. ....ib.
<i>John-ps</i> K. E. ....14	<i>Leo-Moff</i> P. ....42, 43
<i>Joiadoat</i> , <i>Joiakokt</i> , & <i>Jóna-</i> <i>bawz</i> H. P. ....28, 29	<i>Leo-Pheiks</i> E. E. ....38
<i>Jonke</i> Pr. ....20, 21	<i>Levapus</i> ....17, 18
<i>Jorknan</i> K. Is. ....20	<i>Leuetratpi</i> E. ....31
<i>Jorn-Just</i> L. ....41	<i>Libertle</i> P. ....42, 43
<i>Joséphaup</i> L. ....41, 42	<i>Liciniet</i> E. R. ....36
<i>Joséphasit</i> Pa. ....9, 10	<i>Línadka</i> Po. ....32
<i>Jóshfol</i> J. ....18	<i>Ling-Lattleip</i> ....10, 11
<i>Josiasoz</i> & <i>Jothpuk</i> K. Ju. 19, 20	<i>Lolatub</i> ....11
<i>Jovtauf</i> E. R. ....36, 37	<i>Lombalk</i> L. ....43, 44
<i>Irenasp</i> F. ....40, 42	<i>Longfauf</i> K. P. ....24, 25
<i>Irénpoup</i> E. E. ....37, 38	<i>Lúciönp</i> K. Br. ....10, 11
<i>Isakous</i> Pa. ....17, 18	<i>Lukaub</i> Ev. ....45, 46
<i>Isebyk-beiz</i> Pa. ....16	<i>Lycurnes</i> L. ....32
<i>Isleptaud</i> AB. ....46	<i>Lycophrepz</i> Po. ....ib.
<i>Isaipauz</i> Pr. ....21	<i>Lyodút-doif</i> C. ....49
<i>Isrelo</i> ....9, 10	<i>Lys-thracebos</i> K. ....31
<i>Isstít</i> B. ....31	<i>Macdap</i> E. R. ....35, 37
<i>Italein</i> W. ....34	<i>Macaript</i> F. ....41, 42
<i>Ital-Odops</i> K. Italy. ....45	<i>Mahalatsyn</i> Pa. ....17, 18
<i>Judipaud</i> Ær. ....130	<i>Mahalatoul-koul</i> Pa. ....16
<i>Judosk</i> ....9, 10	<i>Maho-las</i> Ær. ....131
<i>Judpa</i> Ep. ....45	<i>Máhomandd</i> Ær. ....ix. 7
	<i>Máhomsed</i> Ær. ....7
	<i>Majorolp</i> E. W. ....37, 38
	<i>Malachinp</i> Pr. ....21

Mar-ls Q. E.	14	Nebsys K.B.	23
Manásseps H. P.	28, 29	Nech=Necus K. Eg.	26
Manassout K. Ju.	19, 20	Necussas K. Eg.	24, 25
Manepp H.	41, 42	Nehemiffu Pr.	10
Manetheky L.	43	Neotal C.	40
Mantisi B.	31	Nerigtun K. B.	23
Marathónz B.	x, 31	Nerul E. R.	35
Marchóz H.	41, 42	Nervous E. R.	35, 37
Marcolz E. E.	37, 38	Nie-Sil-Con-Aritel C.	5, 39
Mard-Empea K. B.	22, 23	Ninezlou K. Ass.	29, 30
Markot Ev.	45, 46	Ninévsad.	9, 10
Mar-Luthlap.	15	Noachazús-nuz Pa.	16
Marylut Q. E.	13	Noenok Pa.	17, 18
Masanielsop	15	Novadna H.	41, 42
Mass-Paraloid	ib.	Numedke E. R.	36, 37
Mathfa Ev.	45, 46	Numpaf K. R.	33
Max-Aviful E.W.	37, 38		
Maxetu E. R.	36, 37	Obaditkoi Pr.	21
Maximideif E. R.	ib.	Ochilk K. P.	25
Medazoiz Archon.	30	Odoacops K. Herali	39, 45
Menappe K. Is.	20	Oédibiss K. Thebes.	30
Menelápe H. P.	28, 29	Ogygapaus flood.	29, 30
Mephtek AB.	46	Olaukzon K. Denmark.	45
Merlopoi L.	43, 44	Olmteek Ær.	8
Mesessoud K. B.	22, 23	Oly-Jan Ær.	131
Mess-primpot W.	30, 31	Olympinik Ær.	8
Mess-seesku W.	32	Olympois & quois Ær.	7
Methuséip-nann Pa.	16	Omacl K. Is.	20
Methusitap Pa.	17, 18	Onkelkoi L.	43, 44
Micha-Paladza E. E.	38	On-primida, -sduz & -tbout H. P.	28, 29
Micpat Pr.	21	Origet F.	41, 42
Min-Fdez F.	41, 42	Ori-Galtyt E. E.	44, 45
Mil-tribfoud	33, 34	Oro-Mag K. P.	21, 25
Mithridatkou W.	ib.	Oroz-Theo L.	44
Misdakk.	9, 10	Othdip Leg.	46
Mnemouf K. P.	25	Oth-Magnis E.W.	37, 38
Mób Ev.	45, 46	Othóbdank Leg.	46
Montápe H.	41, 42	Othoson E. R.	35
Mos-mola, or -dola Pr.	18	Othózu J.	18
Mund-octoi Ær.	131	Ottadoup Turk-Sultan.	11
		Ottomadnoi Sultan	44, 45
Nabonad=Belsh K. B.	26		
Nabonadtul K. B.	23	Papaaz H.	41, 42
Nabonásop Ær.	7	Pap-Avatyl.	11
Nabopolset K. B.	23	Pau-Samdauz H.	41, 42
Nab-fés Ær.	131	Pausalo L.	43, 44
Nadipif K. B.	21, 23	Pec-Lambeka AB.	46
Nadnuf K. Is.	19, 20	Pec-Readoin AB.	ib.
Nahoraksón-bok Pa.	16	Peft B. R.	44, 45
Nahordatl Pa.	17, 18	Pekaipta & Pekapun K. Is.	20
Náhumplei.	24		

Pelagiôzu H.	42	-Phadko, -Philopheeb,	
Pelapûp-etou Pa.	16	-Phombeiz & -Physcobfu	
Pelégedop Pa.	17, 18	K. Eg.	26, 27
Pelf & Pé-secaup Ep.	45	Pu-Baldik E. R.	36, 37
Pelofib W.	31	Pun-esi-das-bok W.	34
Pertinant E. R.	35, 37	Purott.	10
Pert-Juli-Sant E. R.	ib.	Pyrdoin W.	34
Pérsatât K. Mycene	30	Pythágtys Ph.	32
Petrattu L.	43, 44		
Phadko K. Eg.	26, 27	Ralbag & Rambam L.	xiv.
Pharamódy K. France	45	Reg-Babylézou	23
Pharsop B.	34	Regibsnî K. B.	22, 23
Phildeif K. Eg.	26	Rehonoil K. Ju.	19, 20
Phil-Nad Ær.	131	Reuapeip-din Pa.	16
Philteo Ær.	7	Reúedap Pa.	17, 18
Philippeff E. R.	36, 37	Revnau	45, 46
Phi-Col-Ep-Ph-Jase Ep.	45, 46	Ricardiz AB.	46
Phil-Jufy L.	41, 42	Richein, Ri-se-óip & Ri-	
Phíldo Ær.	7	terokt K. E.	12, 13
Philipob B.	34	Rí-Is-jeb-ed K. E.	14
Philipne K. Syr.	27, 28	Rob-Stephân L.	43, 44
Philse Ep.	45	Rom-Jufy	44, 45
Phocilp W.	31	Rommidub and Rompinsa	
Phocauze E. E.	37, 38	Ær.	S. 33
Phrastau K. M.	24, 25	Romput K. R.	7, 33
Pindfôz Po.	32	Romup Ep.	45
Plat-ak Ph.	ix, 32	Ro-pda Ær.	131
Plut-Appi-Tra L.	44	Rufinz L.	41, 42
Pol-Bolath K.	45	Rufkoi K. E.	12, 13
Poly carázei F.	40, 42		
Porpes K. B.	22, 23	Sab=So K. Eg.	25, 26
Port- Alaphabî K.	45	Sabacopdoi K. Eg.	23, 25
Porphepy L.	42	Salamóky B.	31
Powdsyl	15	Salasout-ett Pa.	16
Prinafon	11	Saldibb Pa.	17, 18
Prin-bé skei K. Eg.	24, 25	Salm=Ene=Shalm K. Ass.	26
Priscitpa H.	42	Salmpeb K. Ass.	9, 10
Priscsaf K. R.	33	Salmpek K. Ass.	21, 23
Probdôis E. R.	36, 37	Sambap H. P. & Pr.	18
Procolip L.	43, 44	Sammíje W.	34
Promaskoi.	29, 30	Sanchabout L.	43
Prosp-Oros-Theo L.	44	Saós=Nabu K. B.	26
Protalen.	15	Saóssarp K. B. & Ass.	22, 23
Prudîp L.	43, 44	Sapphsyd Po.	32
Psammaug, Psaminitel, &		Sardaupop or paup k. Ass.	29, 30
Psamitspy K. Eg.	24, 25	Sardîp C.	40
Ptol-Géografz L.	43, 44	Sardug	9, 10
Ptol-ælibapalsy K. Eg.	31	Satátty K. Crete	30
Ptol- Alexanky, -Aulaul,		Saulá-nî K. Is.	9, 10, 19, 20
-Epiphezo, -Euergdos,		Scanderboft K.	11
-Lagtyo, -Lathvraqdz		Scot-Ferglid K.	45

Sec-Pe-Timaup Ep.....	45, 46	Témbybe Ær.....	5, 6, 7
Seleuc-as K. S.....	31	Temméne & Tempipze Ær.	8
Seleucous, Sel-Caldfu,		Terakoik-dyl Pa.....	16
Cerauneel, -Nitad &		Terebes Pa.....	17, 18
-Phaks K. S.....	27, 28	Tertuland F.....	40, 42
Semiranaul Q. Ass.....	29, 30	Teuchuzd K.	30
Sennachoibo K. Ass.....	21, 23	Thaumelf F.....	41, 42
Sen=Sarg K. Ass.....	26	Thebadel W.....	30, 31
Septepoi.....	10	Theócreku Po.....	32
Serakán-diz Pa.....	16	Theódoni K. Ostro-Goths..	39
Serúgduku Pa.....	17, 18	Theodótapu L.	41, 42
Servups K. R.	33	Theo-Júnoczi E. E.....	37, 38
Seth-áty-nad Pa.....	16	Theo-Magtoin E. E.....	ib.
Séthikoif Pa.	17, 18	Theoph-Antask F.....	40, 42
Sevérant E. R.....	35, 37	Thesbdif.....	30
Sevpan K. Eg.....	23, 25	Thesle-t Ep.	45, 46
Sev=Seth K. Eg.....	26	Tholet J.	18
Shalluppe K. Is.....	20	Thom-Aquadsí L.....	43, 44
Sheffs Pa.....	17, 18	Thuansap L.....	ib.
Shembulk-ang Pa.....	16	Tiberbu E. R.....	34, 35
Sidétboz K. S.....	27, 28	Tibnen K. Is.....	19, 20
Sil-Itál-Nero L.....	44	Tigráneit K. A.....	27, 28
Sim-Jig-Maccabot, & -sec-		Ti-Timsu, Tim-secaup &	
dap H. P.	28, 29	Timosu Ep.....	45, 46
Sisyphátzo K.	29, 30	Tirhapyl K. Eg.....	24, 25
Smalcaltos.....	15	Tirh=Tara K. Æth.	26
Sinerd=Art K. P.....	26	Titsu Ep.....	45
Socrinn Ph.....	32	Titpou E. R.....	35
Sód-Gakoup.....	9, 10	Toilop K. Ostro-Goths....	38
Solomázal K. Is.....	19, 20	Trajank E. R.....	ix, 35, 37
Solun Ph.....	ix, 32	Trentatol C.	40
Sophoclozoi Po.....	32	Tren-decat-alfu C.....	15
Sp-Athfaz K.....	45	Tribfoud.....	33, 34
Sp-ínvukk.....	15	Triun.....	34
S-Quinateil P.....	42, 43	Trómekeb Ær.	8
Stat-consularoso.....	33, 34	Tróyabeit Ær.....	7
Stat-regidol.....	33	Troy-jas Ær.....	131
Stephbíl K. E.....	12, 13	Troypílla Ær.....	8
Steph-da K. E.....	14	Turk-Ottomadnoi.....	44, 45
Stephede AB.....	46	Turntaul & Tychblos L....	43, 44
Strab-Tib L.....	44	Gylíka.....	15
Stratfotod AB.....	46		
Sudbutoik AB.....	ib.	Valentaay H.....	41, 42
Superlid K. R.....	33	Valéreti E. R.....	36, 37
Swed-Berokib K.....	45	Val(en)tinitauf & Valentódo	
Syl-dictreiz.....	34	E.W. Valiso E. E. & Val-	
Symmachezb L.....	41, 42	sikt E.W.	37, 38
		Vespoiz E. R.	35
Tacidoil E. R.....	36	Vientaa C.	40
Tacitázei L.....	43, 44	Viteltoiz E. R.....	35
Tam-Bajatóun.....	11	Vitruv-Jul L.	44

Ulp-Sev L.	44	Yezd-Jas Ær.	131
Un-Ploin	15	Yézsíd Ær.	7
Voludla E.R.	36, 37		
Vortigfos	12, 13	Zacharappt K. Is.	20
Vict-Acta-se Ær.	131	Zebbel K. S.	27, 28
Urb-s-Cle-p-atoip P. P. .	42, 43	Zecharídz Pr.	21
Uz-Azarikby K. Ju.	19, 20	Zedekilnei K. Ju.	19, 20
		Zedleik.	9, 10
Walted AB.	46	Zenobdoid Q.	10, 11
Wil - consau, Rutkoi, &		Zencfpo E.E.	37, 38
Mseik K.E.	12, 13	Zephautz Pr.	21
Wil-tbó-sou-tat K.E.	14	Zim-Tibnen K. Is.	19, 20
Winchty! AB.	46	Zonarabbak L.	43, 44
		Zoroafne	10
Xenóphitou Ph.	32	Zosifel L.	42
Xerxoku K.P.	24, 25	Zosoap.	42, 43
Xerd-Sog K.P.	ib.	Zos-Theo jun L.	44

THE
CONSTRUCTION AND USE
OF THE
GEOGRAPHICAL WORDS.

OF words consisting of two parts in the same character, joined with a hyphen, the first part denotes a city, town, people, &c. in a kingdom, region, or province, denoted by the latter: the words in *Italic* letters signifying places in ancient Geography, the words in *Roman* letters, places in modern Geography. Thus, *Abdér-thra*: Abdera, a town in ancient Thrace. *Aginc-art*; *Agincourt* in *Artois*.

Words in a parenthesis denote that the place represented by the first syllable or syllables, is one of those represented by the latter, as (Antig-lee) *Antigua*, one of the *Leeward* Islands; (Cub-ant) *Cuba*, one of the *Antilles*.

The letters N. E. S. W. either following or in a word, denote the situation of a place: as Antill-lue S. the *Antilles* Islands, South of the *Lucayos*; Madéir-barb W. *Madeira* Isles, West of *Barbary*; AmNemoab, the *Ammonites* resided on the North-East of *Moab*. S. preceding a word signifies Saint.

The letters G.S. denote Sacred Geography.

A small capital at the end of a word denotes a particular portion or division of the region designed by the preceding letters: as *Æqui-latx* points out that the *Æqui* dwelt in *Latium Novum*; Batch-tartar, that *Batchiserai* is situated on the peninsula of *Little Tartary*.

Italics joined with a hyphen denote the latitude and longitude of a place: as, *Agrêk-oit*, the latitude of *Agra* 28 deg. the longitude 73.

Italics joined with a comma denote the proportion of the kingdom, &c. to Great Britain; as *Germt,ut*, Germany to Great Britain as 3·53 to 1.

Italics joined without a hyphen generally denote the distance from London or Jerusalem; as *Pardel sc.* Paris from London about 225 miles; *Antiochiy*, Antioch from Jerusalem about 300 miles.

Syllables joined with this mark = denote correspondent places of ancient and present geography: as, *Ach*=livad, the ancient *Achaia*, the present *Livadia*.

VOCES GEOGRAPHICÆ.

	PAGE		PAGE
<i>Abdér-thra</i>	75, 77	(Antig-lee)	69
<i>Acerr-camp</i>	76, 77	Autill-luc S.	<i>ib.</i>
<i>Ach</i> =livad	78, 79	Antiochi ^g	65
<i>Acróc-epir</i>	75, 77	<i>Antióch-pisid</i>	76, 77
<i>Act-acarn</i>	<i>ib.</i>	<i>int-vols</i>	<i>ib.</i>
<i>Adrám-mysi</i>	76, 77	<i>Aquilei-carn</i>	<i>ib.</i>
<i>Ægæ</i> =arch*	79, 81	<i>Aram=syr-mes</i> G. S.	82
<i>Ægin</i> =eng	80, 81	<i>Arbél-ass</i>	75, 77
<i>Æo</i> =lípari	<i>ib.</i>	Arch-dwin	58, 60
<i>Æqui-lat</i> s	77	Archsó-fe	63, 64
<i>Ætna</i> =gib	80, 81	<i>Ard-rut</i>	76, 77
<i>Africa</i> =trip-tun	78, 79	<i>Argent</i> =strasb	81
<i>Agine-art</i>	59, 60	<i>Arimiu-umb</i>	76, 77
<i>Agrék-oit</i>	63, 64	<i>Arm-ture-alad</i>	79
<i>Agr-ind</i>	60, 61	<i>Arr</i> =hama W. G. S.	83, 84
<i>Aix-la-cha-west</i>	58, 60	<i>Ashke-phr</i> G. S.	82, 83
<i>Aix-prov</i>	57	<i>Asshur-ass</i> G. S.	82
<i>Aladul-nat</i>	61	<i>Assúm-pa</i> ra	61
<i>Alb</i> =brit	79	<i>Astrác-tart</i>	<i>ib.</i>
<i>Alepís-tei</i>	63, 64	<i>Astróp-lau</i>	63, 64
<i>Alép-syri</i>	61	<i>Athik-el</i>	<i>ib.</i>
<i>Alexib if</i>	63, 64	<i>Athos-mac</i>	75, 77
<i>Allób</i> =sav	78, 79	<i>Aug-suab</i>	57, 58
<i>Amas-nat</i>	61	<i>Avig-prov</i>	59, 60
(Amboyn-mol)	67, 68	<i>Aus-lat</i> s	77, 78
<i>Ambr-acarn</i>	76, 77	<i>Azov-circ</i>	61
<i>Amien-pica</i>	57	<i>Azór-pert</i> W.	68
<i>AmNemoab</i> G. S.	85		
<i>Amye-lac</i>	76, 77	<i>Babylit-fo</i> Pa.	63, 64
<i>Ancy-r-gal</i>	<i>ib.</i>	<i>Babylöky</i> G. S.	65
<i>Ancon-pap</i>	60	<i>Bad-suab</i>	58, 61
<i>Ang-caern</i> W.	69, 70	<i>Bæt</i> =guádal	80, 81
<i>Anj-ori</i>	60	<i>Bag-diarb</i>	61
<i>Ant-brab</i>	57	(Baha-luc)	69

* The reader will find in this Index also, many of the words more fully expressed than they are in the body of the work.

<i>Bai-campu</i>	76, 77	<i>Cann-peucel</i>	75, 77
<i>Bale</i> =ma-mi	80, 81	<i>Canta</i> =bisc	79
<i>Balt-mary</i>	61	<i>Canv-ess</i> E.	69, 70
(<i>Barb-carib</i>)	69	<i>Capitanap</i>	60
<i>Barbbu-la</i>	63, 64	<i>Caramán-nat</i>	61
<i>Bar-catal</i>	58	<i>Carbáli-pamph</i> ...	76, 77
<i>Básilfoi-p</i>	62, 64	<i>Caríbb-ant</i> E.	69
<i>Bast-corsic</i>	59, 60	<i>Carls-cro</i>	58
<i>Batch-tartap</i>	<i>ib.</i>	<i>Carp</i> =scarp	80, 81
<i>Bellbá-ku</i>	63, 64	<i>Carthti-by</i>	63, 64
<i>Belg-servi</i>	58	<i>Cart-mur</i>	59, 60
<i>Beneven-nap</i>	59, 60	<i>Casp</i> =sála-back	79, 81
<i>Bengdá-out</i>	63, 64	<i>Cassit</i> =scill	80, 81
<i>Bérge-nor</i>	59, 60	<i>Cass-rhinu</i>	58, 60
<i>Berl-branden</i>	<i>ib.</i>	(<i>Celeb-mol</i>)	67, 68
<i>Bermta-lou</i>	63, 64	<i>Cenchr-ach</i>	76, 77
<i>Berm-carol</i> E.	69	(<i>Ceram-mol</i>)	67, 68
<i>Berr-orl</i>	60	<i>Cerig-mor</i> S.	67
<i>Bersy-l</i>	62, 64	<i>Cern</i> =madag	80, 81
<i>Béry-phæn</i>	75, 77	<i>Cepha</i> =mor W.	67
<i>Besánc-FranCom</i>	59, 60	<i>Ceyl-Prest</i> E.	67, 68
<i>Bilb-bisc</i>	58	<i>Chalc-ætol</i>	76, 77
<i>Blénhe-bav</i>	ix, 58, 60	<i>Chalcéd-bith</i>	<i>ib.</i>
(<i>Born-sound</i>)	67, 68	<i>Chalc</i> =neg	80, 81
<i>Boryst</i> =niep	80, 81	<i>Chaly-gal</i>	76, 77
<i>Bosph-címm</i> =caff	79, 81	<i>Chamb-sav</i>	59, 60
<i>Bosp-thruci</i> =const	<i>ib.</i>	<i>Chamb-tart</i>	60, 61
<i>Bourd-gui</i>	57	<i>Charl-nam</i>	57
<i>Brand-Saxu</i>	59, 60	<i>Chax-æthinf</i>	61
<i>Bred-brab</i>	<i>ib.</i>	<i>Chéron-bao</i>	75, 77
<i>Brem-saxl</i>	58, 60	<i>Chocz-mold</i>	58
<i>Bres-sile</i>	59, 60	<i>Christ-agg</i>	59, 60
<i>Brug-fland</i>	57	(<i>S. Christ-lee S.</i>)	69
<i>Brund-cala</i>	76, 77	<i>Cimb</i> =jutl	78, 79
<i>Brus-braba</i>	57	<i>Cimm</i> =caff	79, 81
<i>Brusly-o</i>	62, 64	<i>Cirt-num</i>	76, 77
<i>Brut-oenot</i>	77	<i>Cith-bæ</i>	75, 77
<i>Burg-cast</i> Vet.	58	<i>Citadel-min</i>	59, 60
<i>Cad-andal</i>	59, 60	<i>Clev-westpha</i>	57, 58
<i>Cagli-sard</i>	<i>ib.</i>	<i>Cius-ctru</i>	76, 77
<i>Cairdou-il</i>	63, 64	<i>Cnid-dora</i>	<i>ib.</i>
<i>Cair-eg</i>	61	<i>Coilán</i> =zeal	78, 79
<i>Cala-mess</i>	77, 78	<i>Col-Agrip</i> =col.	81
<i>Cali-graun</i> W.	68, 69	<i>Col-Alt</i> =gen	<i>ib.</i>
<i>Cal-pica</i>	58, 60	<i>Colch</i> =ming	78, 79
<i>Calp</i> =gib	81	<i>Colog-rhinl</i>	57, 58
<i>Camb-hainau</i>	57	<i>Colóss-phrygi</i>	76, 77
<i>Canu-jorm</i>	83, 84	<i>Comagen-syrr</i>	<i>ib.</i>
<i>Canár-bild</i> W.	68	<i>Compost-gal</i>	58
<i>Cand-archip</i> S.	67	<i>Constob-la</i>	62, 64
		<i>Const-rom</i>	58

<i>Constasgy</i>	65	<i>Edéss-mes</i>	76, 77
<i>Const-suab</i>	58, 60	<i>Edóm-Sjud G. S.</i>	85
<i>Coplu-be</i>	62, 64	<i>Ela=sus-pers G. S.</i>	82
<i>Copsaz</i>	65	<i>Elb-ger-oc</i>	86
<i>Cop-zeal</i>	59, 60	<i>Elcus-meg</i>	76, 77
<i>Cord-andalu</i>	<i>ib.</i>	<i>Elish-arch G. S.</i>	83
<i>Corf-but W.</i>	67	<i>Eph-ion</i>	76, 77
<i>Corfini-pelig Pa.</i>	76, 77	<i>Epi=chim</i>	78, 79
<i>Corin-ach</i>	<i>ib.</i>	<i>Epidau-lac</i>	76, 77
<i>Corsic-gen S.</i>	67	<i>Erid=po</i>	80, 81
<i>Cos=lang</i>	80, 81	<i>Eub=neg</i>	<i>ib.</i>
<i>Craco-polp</i>	59, 60	<i>Euph-arm-sin-pers</i>	86
<i>Cracúz-ez</i>	62, 64	<i>Eux=black</i>	79, 81
<i>Crem-mil</i>	59, 60		
<i>Cress-pic</i>	<i>ib.</i>	<i>S. Fé-gran</i>	61
<i>Cret=candy</i>	80, 81	<i>(Fer-can)</i>	68
<i>(Cub-ant)</i>	69	<i>Ferrek-ak</i>	63, 64
<i>Cum-æoli & Cur-sab</i>	76, 77	<i>Ferrep,op-ap,il</i>	64
<i>Cush=æthiop G. S.</i>	83, 84	<i>Fez-barb</i>	61
<i>Cyp-nato S.</i>	67, 68	<i>Flor-tusc</i>	59, 60
<i>Cyrr=corsic</i>	80, 81	<i>Fontara-bisc</i>	58, 60
<i>Cyth=ceri</i>	<i>ib.</i>	<i>Formdi-g</i>	63, 64
<i>Cyzi=mys</i>	76, 77	<i>Formó-souchin E.</i>	67, 68
		<i>Fort=can</i>	80, 81
<i>Dáa-bild</i>	61	<i>Franap</i>	65, 66
<i>Daci=mold-wa-t.</i>	78, 79	<i>Franc-rhinu</i>	57, 58
<i>Damáschuz G. S.</i>	65	<i>FranCom-burg E.</i>	52
<i>Damasc-cæl S.</i>	76, 77	<i>Fun-jut E.</i>	66, 67
<i>Dan-a-béerdoz G. S.</i>	65		
<i>Dang-nub</i>	61	<i>Gad=cad</i>	80, 81
<i>Dan-suab-eux</i>	85, 86	<i>Gadi-fret=gib</i>	79, 81
<i>Dantzickyz</i>	65	<i>Gætul=bild</i>	78, 79
<i>Dantzic-pol</i>	59, 60	<i>Gang-paph</i>	76, 77
<i>Dantzuf-bei</i>	62, 64	<i>GángI-beng</i>	86
<i>Daun-apu</i>	77	<i>Garam=zaar</i>	79
<i>Del-pho</i>	75, 77	<i>Genevosy</i>	65
<i>Dénmab,on</i>	66	<i>Genev-switz</i>	59, 60
<i>Devént-over</i>	57	<i>S. Göobi-sou</i>	63, 64
<i>Diarb-Turka</i>	61	<i>Germt.ut</i>	65, 66
<i>Dioscór=Zoc</i>	80, 81	<i>Gibtau-s</i>	62, 64
<i>Dijón-burg</i>	57	<i>Gibrabsy</i>	65
<i>Dodon-mol</i>	76, 77	<i>(Gilo-mol)</i>	67, 68
<i>Douay-fland</i>	57	<i>Gomer=alb G. S.</i>	82, 83
<i>Dresd-sax</i>	59, 60	<i>Gorg=verd</i>	80
<i>Dunk-fland</i>	57	<i>Gott-goth</i>	59, 60
<i>Dwin-Rus-whi Pa.</i>	86	<i>Grani-ph</i>	75, 77
<i>Dyrr-mac</i>	75, 77	<i>Gren-dau</i>	57
		<i>Guern-norm W.</i>	69, 70
<i>Ebr-med-s.</i>	86		
<i>Ebúd=West Scot</i>	69, 70	<i>Ha'icár-dora</i>	75, 77
<i>Ebús=Yv</i>	80, 81	<i>Humáth=phæn-syr G. S.</i>	83, 84

Hamb-saxl	57, 58	Lad-phil E.	67, 68
Hano-saxl	<i>ib.</i>	Laod-car	76, 77
Hav-arab	83, 84	Lavini-lat	76, 77
Havred-norm	59, 60	Leg-tusc	59, 60
Havi=sus-car G. S.	82	Leip-sax	<i>ib.</i>
Heid-rhil	57, 58	Leipsub-ad	63, 64
Hecst-at	63, 64	Lemn=stali	80, 81
S. Helbu-p	<i>ib.</i>	Lesb=metelin	<i>ib.</i>
S. Hel-congo W.	68	Leuc-bao	76, 77
Helico-ph	75, 77	Leuc=maur	80, 81
Hellesp=dard	80, 81	Leuwárd-fries	57
Herm-transyl	58	Lib-des=zaara	79
Hern-latn	77, 78	Libur=cro	78, 79
Hesp=verd	80, 81	Liburn-etru	76, 77
Helv=switz	78, 79	Liby=bare	79
Hip-numid	77, 78	Liege-westph	59, 60
(Hispaniol-ant)	69	Ligu=gen	71
Hocst-bav	58, 60	Ligus-mar=gen	80, 81
Holy-north E. Pa.	69, 70	Limo-guienn	60
Holst-saxl	60	Listei-bz	63, 64
Hymett-att	75, 77	Lis-port	59, 60
Hyrc=sala-back	79	Lónla <i>ib.</i>	64
S. Jag-chili	61	Loo-gueld	57
(Jamaic-ant)	69	Lorett-anc	59, 60
Jamak-ky	63, 64	Lorr-champ E.	52
Jam-virgin	61	Lub=liby G. S.	83, 84
Jap-norChin E.	67, 68	(Lucáyo-luc)	69
Japto-bay	63, 64	Luc-flor E.	<i>ib.</i>
Jav-gree G. S.	83	Luc-oenot	77
(Jav-sound)	67, 68	Lud=tyd G. S.	82
Ib=spain	79	LugB=leyd	81
Iber-alb=georg	78, 79	Lug=lyo	<i>ib.</i>
Ice-nor W.	66, 67	Lund-scon	59, 60
Jers-norm W.	69, 70	Lyca-cap	76, 77
Jeruta-ts	ix, 62, 64	Macáss-mol	67
Idil-doi	63, 64	Madag-zang E.	68
Illi-phrya	76, 77	Mad-castn	58
Illib-hisph	<i>ib.</i>	Madeir-barb W.	68
Illyri=cró-dal	78, 79	Madéirit-ed	63, 64
Jord-neph-salt G. S.	86	Madroy-t	ix, 62, 64
Ish-mad-am-arab G. S.	85	Madreisz	64, 65
Isp-pers	60, 61	Mæan-lydi	75, 77
Ispte-on	63, 64	Mæot-az	79, 81
Iss-cili	75, 77	Maest-limbu	59, 60
Ist=danu	80, 81	Magd-saxl	58, 60
Ist-ven	59, 60	Mag-scyth G. S.	83
Itab,an	65, 66	Mala-gran	59, 60
Itha=comp	80, 81	Maldív-Pwest S.	67, 68
Kitt=ita G. S.	83	Malt-sici S.	68
		(Maníl-phil)	67, 68

Man-lanc W.....	69, 70	Nil-medi	86
Mant-arc.....	76, 77	Nim-guelder	58, 60
Marath-att	75, 77	Ninto-fc	63, 64
Marseil-prov	57	Nism-langued.....	59, 60
Mau=fez-mor	78, 79	Not-campa	77, 78
Meaux-champ	59, 60	Nom-arab.....	ib.
Mediol-ins.....	76, 77	Nor=bavar-aus.	78, 79
Memph-Ægi	ib.	Numid=alg	79
Menuth=madag	80	Numi-nov=bild.....	ib.
Meshech=mosch G. S.....	83	Nurem-franc	57, 58
Mesop=diar	79	Nyss-meg	75, 77
Messap-græm	77		
Messinik-bau	63, 64	Od-balt	86
Metelin-nat W.	67, 68	Oeno-græm	77
Midd-zeal	57	Oliv-prus.....	58, 60
Mi-majore-valen E.	66, 67	Olym-elis.....	75, 77
(Mind-phil)	67, 68	Olymp-thess	ib.
Ming-georg	61	Omer-art	58, 60
Mitt-courl	59, 60	Oph=chers G. S.....	82
Mizr-æg G. S.	83, 84	Oran-prov.....	57
Moa-Næd G. S.....	85	Ork-scot N.	69, 70
Mas-inf=bulg.....	78, 79	Oss-thess	75, 77
Mas-sup=serv.....	ib.	Ovi-ast	58
Mog=mentz	81	Oxlá-fs, b-ap.....	64
Molúc-PEast E.	67, 68		
Monom-æths.....	61	Pad=po	80, 81
Mons-hain.....	57	Padu-ven	58, 60
Montpel-lang	58, 60	Palerm-sici	59, 60
Moscassy	65	Palm-cæts.....	77, 78
Mosclu-tei	62, 64	Pampel-nav	58
Mousúl-diar	61	Pannón=hung.....	78, 79
Muníc-bavar	57, 58	Parfk-e	62, 64
Munst-west	ib.	Par-isle	57
Muti-boi	77, 78	Pardel	64, 65
Mycén-arg	76, 77	Putu-lyc	76, 77
		Pavát-venet	ib.
Nabath-arap	77, 78	Patm=palm.....	80, 81
Nanfêi-s	63, 64	Pat-sporad.....	75, 77
Nancy-lor	59, 60	Pek-chin	60, 61
Naplob-bu	63, 64	Pekinoz-bap	63, 64
Nass-rhinu	59, 60	Pelión-thess	77
Natol-turka	61	Pell-æmath.....	76, 77
Nazarky G. S.	65	Pelopon=mor	78, 79
Neg-livad E.....	67	Perg-myss	76, 77
Neme-arg	76, 77	Perpig-rous	59, 60
Neocæs-cap	ib.	Petwara-sclav.....	ib.
Newf-novscot E.	68, 69	Peucét-apu	77
Nico-cyp.....	61	Phar-atéxand	68
NieP-eux	85, 86	Phars-thessa	76, 77
Nicóm-bithy	75, 77	Philadelp-lyd	ib.
Nig=neg	79	Philad-pens.....	61

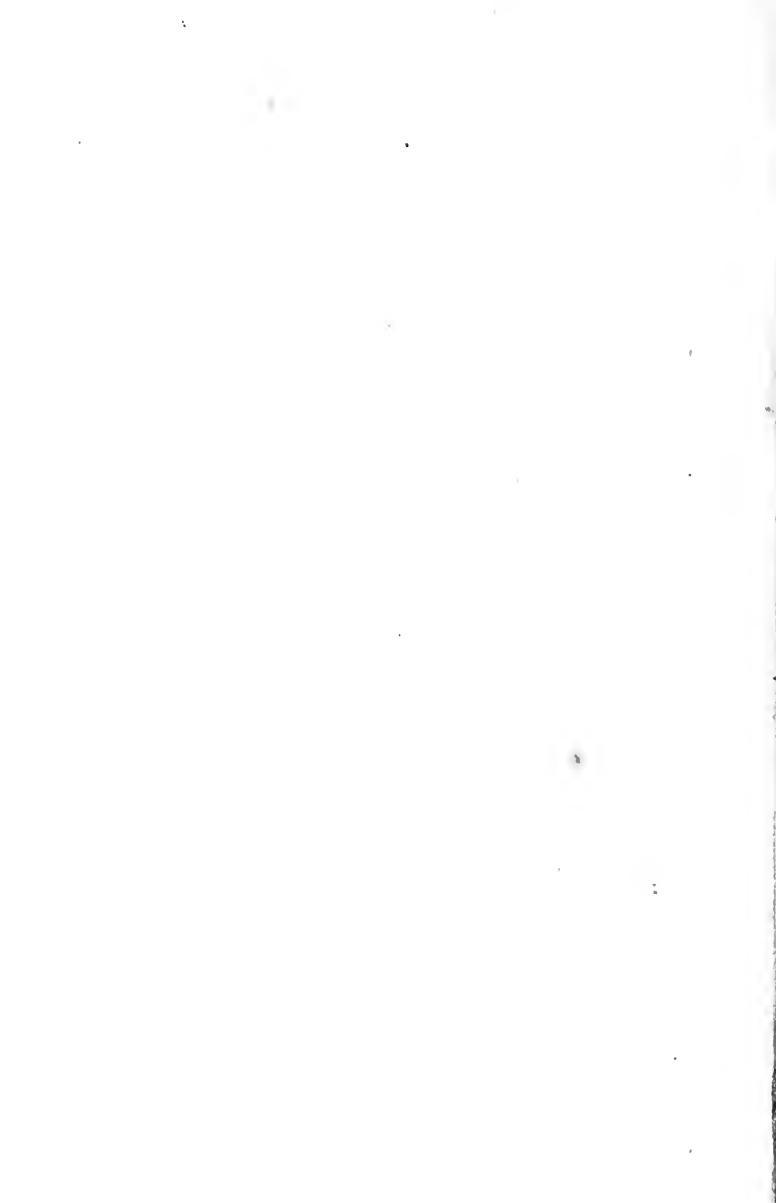
<i>Philip-thraci</i>	76, 77	<i>Russaz, bi</i>	66
Philip-East Pen E.	67, 68	<i>Sub-araF</i>	77, 78
<i>Philist</i> =pal G. S.	83, 84	<i>Sagun-tarr</i>	76, 77
<i>Phul-lib</i> G. S.	<i>ib.</i>	<i>Sagunt</i> =morved	81
<i>Pisid-pam</i>	76, 77	<i>Salam</i> =col.....	80, 81
Poict-ori	57	<i>Salamanc-leo</i>	59, 60
Pol-istri	59, 60	<i>Salent-mess</i>	77, 78
Polt, <i>in</i>	65, 66	<i>Salonic-mac</i>	58
Pomeran-saxu	59, 60	S. Salv-braz	61
Port-novscot	61	Samarot G. S.	65
Por, <i>ts</i>	66	<i>Samôsa-com</i>	75, 77
(Portric-ant).....	69	Sam-nat W.	67, 68
(Port-sant-mad).....	68	<i>Saracén-araF</i>	77, 78
Poseg-sclav.....	59, 60	Sard-gen S.....	67
<i>Pragaulz</i>	65	Sarag-arr.....	58
Prag-boh.....	59, 60	<i>Sard-tyd</i>	75, 77
Pragly-bo.....	62, 64	<i>Sardic-thraci</i>	<i>ib.</i>
Presb-hungu	59, 60	<i>Sarm</i> =po-ta-russ-l.....	78, 79
<i>Propont</i> =mar.....	79, 81	Sav-burg-dau E.....	52
(Provi-luc).....	69	Saxo-saxu	59, 60
<i>Pyl-mess</i>	75, 77	<i>Scand</i> =swe-nor	78, 79
Quebop-pu.....	63, 64	<i>Scen-arad</i>	77, 78
Queb-canada.....	61	Scio-nat W.	67, 68
<i>Ra-déd</i> =pers-gu G. S.....	83, 84	Sclav-hung	59, 60
Ragu-dal	59, 60	<i>Scyth-sog</i> =tart.....	78, 79
Ram-dávi-pem W.....	69, 70	Sen-atlant-oc.....	86
Rati-bav	59, 60	Serai-bosn & Sev-andalu. .	58
<i>Ravén-umb</i>	77, 78	<i>Shcb-araF</i> G. S.....	83, 84
Rav-rom	59, 60	Shep-kent E.	69, 70
Rénn-bréta	57	Shet-scot N.....	<i>ib.</i>
<i>Rhaet</i> =gris-tyr-it	78, 79	<i>Siamaf-ga</i>	63, 64
<i>Rha</i> =volga.....	80	Sici-nap S.	67
<i>Rhég-calabri</i>	76, 77	<i>Sicu-fret</i> =mess.....	80, 81
Rhei-cham.....	57	<i>Sid-phæn</i>	77, 78
Rhin-gris-ger-oc	85, 86	<i>Sin adriat</i> =ven, -amb=lart, -arab=redS, -corinth=lep, gan = beng, -may = sia, -pers=bals & <i>Sin-salam</i> = eng	80, 81
Rhod-nato S.	67, 68	<i>Sirm-panu</i>	76, 77
Rhon-med-s.....	86	Sles-jut	59, 60
Rholoi-te.....	63, 64	Smyrnik-dou	62, 64
<i>Ricéz-lou</i>	<i>ib.</i>	<i>Smyrn-ion</i>	76, 77
Riga-liv	59, 60	Smyrn-nat	61
Roch-ori	<i>ib.</i>	<i>Sogd</i> =zagat-usb	79
<i>Romfá-bc</i>	62, 64	Soiss-isle	59, 60
<i>Rómfa, lo-bé, dou</i>	64	Soph-bulg.....	58
<i>Romouty</i>	65	Sound-PEast S. E.....	67, 68
Rom-pap	60	<i>Spa.ka</i>	65, 66
<i>Rottho</i> =rouen	81	Spal-dalma.....	58
Rou-norm	57		
Rous-catalon	59, 60		
<i>Rubi</i> =flum	80, 81		

<i>Spann.ak</i>	66	<i>Tomb-neg</i>	61
<i>Spart.lac</i>	76, 77	<i>Tortós-cat</i>	58
<i>Spitspi-sou</i>	63, 64	<i>Trasi=per</i>	80, 81
<i>Stali-nat W</i>	67, 68	<i>Tren-tyrel</i>	59, 60
<i>Stet-pomeran</i>	59, 60	<i>Tüe-rhil</i>	<i>ib.</i>
<i>Stocklou.ak</i>	62, 64	<i>Trinac=sicil</i>	80, 81
<i>Stockoupz</i>	65	<i>Troy-champ</i>	57
<i>Stock-swer</i>	59, 60	<i>Troy-en</i>	62, 64
<i>Strasb-alsa</i>	<i>ib.</i>	<i>Túb=ibéri G. S.</i>	82, 83
<i>Stras-rhup</i>	57, 58	<i>Tuscu-lat</i>	76, 77
<i>Sulmo-petig</i>	76, 77	<i>Turt.ak</i>	65, 65
(Sumat-sound).....	67, 68	<i>Turin-piéd</i>	59, 60
<i>Swedi.ss</i>	65, 66	<i>Turcóm-turka</i>	61
<i>Swit-comt E</i>	52	<i>Tyrol-aust</i>	59, 60
<i>Swi'zer.boi</i>	66	<i>Tyr-phæn</i>	77, 78
<i>Syracu-sicil</i>	76, 77	<i>Tyrrh-mar=tusc</i>	80, 81
<i>Syri-turka</i>	61	<i>Valedol-old C</i>	59, 60
<i>Tág-lusit</i>	75, 77	<i>Veet-hamp S.</i>	69, 70
<i>Tai spain-alt-oc</i>	86	<i>Venft-ad</i>	63, 64
<i>Tana=don</i>	80	<i>Verd-neg W.</i>	68
<i>Taprob=ceyl</i>	80, 81	<i>Verd-saxl</i>	58, 60
<i>Tarent-sal</i>	77, 78	<i>Vesur=som</i>	80, 81
<i>Tarsh=cil G. S.</i>	83	<i>Vienkoz</i>	65
<i>Taur-chers=part.</i>	79	<i>Vienn-aust.</i>	57, 58
<i>Tegæ-arcad</i>	77	<i>Vienok-ap</i>	62, 64
(Tenerif-can).....	68	<i>Vind-sua-b</i>	78, 79
(Tercér-azor).....	<i>ib.</i>	<i>Vist-po-balt</i>	85, 86
<i>Tercéríp-el</i>	63, 64	<i>Vólg-rus-casp</i>	<i>ib.</i>
<i>Tergó-walach</i>	58	<i>Volse-latx</i>	77, 78
<i>Termagnitésoklaum</i>	4, 88, 89	<i>Un-pr.ab</i>	66
<i>Than-kent E.</i>	69, 70	<i>Uz=júp-arab</i>	82
<i>Theb-ÆgS</i>	76, 77	<i>Wars-mazov</i>	59, 60
<i>Thess=jan</i>	ix, 78, 79	<i>Warsnuz</i>	65
<i>Thessal-ámphax</i>	76, 77	<i>Warsúd-cb</i>	63, 64
<i>Thoul-langued</i>	57	<i>Wight-hamp S.</i>	69, 70
<i>Thraci=rom</i>	78, 79	<i>Witt-saxu</i>	57, 58
<i>Thúl=ice</i>	80, 81	<i>Y-valenci E.</i>	66, 67
<i>Thya-tyd</i>	76, 77	<i>Zant-mor W.</i>	67
<i>Tij=zur</i>	81	<i>Zeal-jut E.</i>	66, 67
<i>Tigr-arm-sin-pers.</i>	86	<i>Zell-saxl</i>	59, 60
(Tobag-lee).....	69	<i>Zoc-ajan E.</i>	68
<i>Togárm-cap G.S.</i>	82, 83		
<i>Toiéd-newC</i>	59, 60		
<i>To-mæs</i>	76, 77		

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